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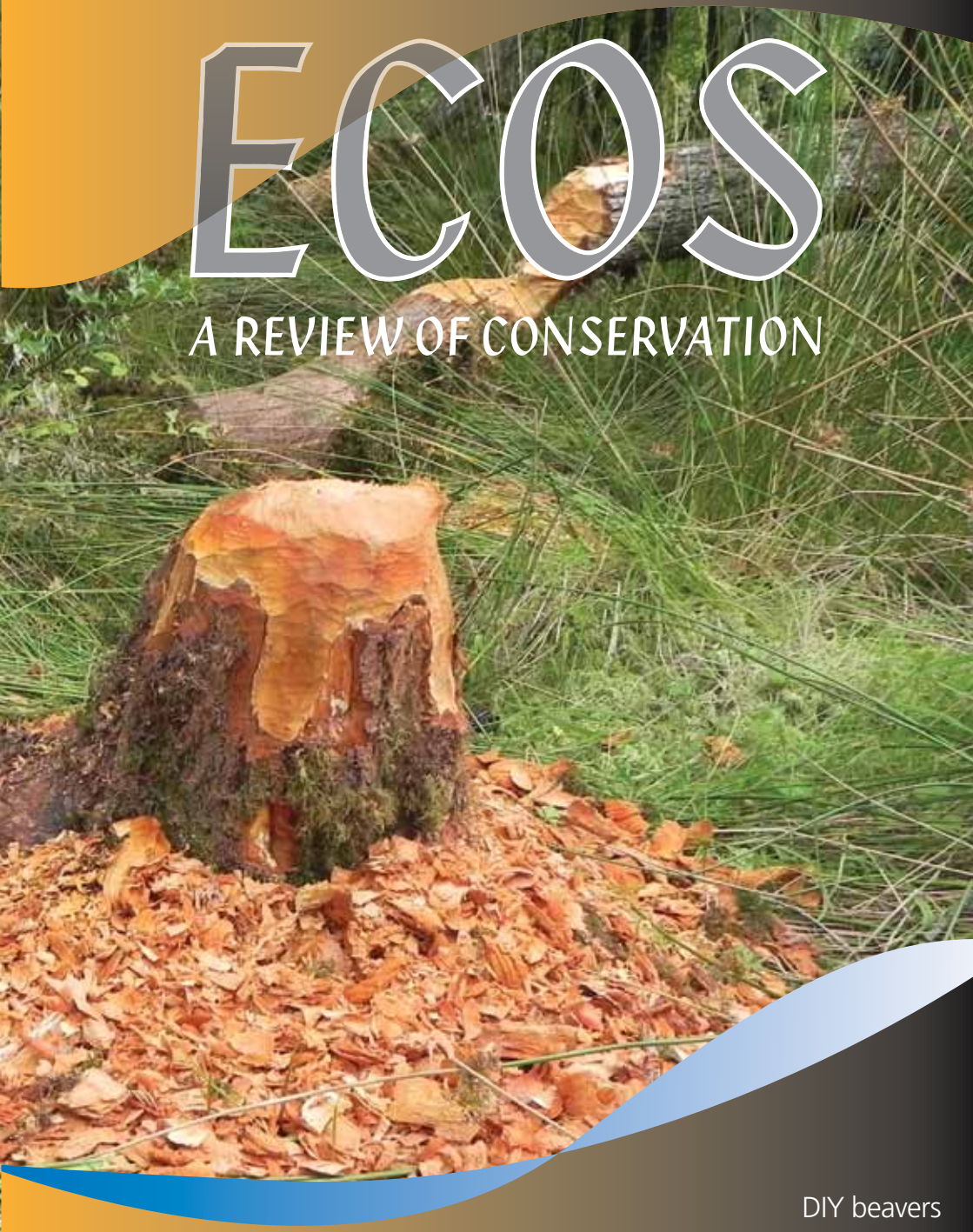
ECOS

A REVIEW OF CONSERVATION



DIY beavers

Conservation's political voice

Compassion for nature – the consequences

ECOS
A REVIEW OF CONSERVATION
ECOS is the journal of the British Association of Nature Conservationists

www.banc.org.uk
ecos@easynet.co.uk

Managing Editor:
Rick Minter
07768 748301
ecos@easynet.co.uk

Assistant Editor:
Martin Spray
Hillside, Aston Bridge Road, Pludds, Ruardean, Glos. GL17 9TZ
01594-861404

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Editorial

Towards infinity

Like Buzz Lightyear, the Toy Story hero, BANC is hopeful and daring. Now after 35 years, we can see there have been flights of fancy and some real successes amongst BANC's career, all with meagre resources. Creating a digital *ECOS* was an agonising decision and while we expected a mixed reaction, the positive feedback has been a morale boost. Meanwhile amidst the undergrowth of conservation activity a new organisation has emerged – Rewilding Britain. Its blurb promotes an agenda of "wonder and excitement". This is naturally good news to BANC, which drove debate on rewilding for nearly two decades, with scores of *ECOS* articles, two BANC sponsored books, nurturing of the Wildland Network, and several ground-breaking events.

BANC's imprint is often missing from the work and projects it helps spark, but no matter, our role is to scrutinise, ginger things along, and release creative energy. The Woodland Edge for instance, was a true flight of fancy which became a mind-blowing event, communing with an ancient landscape, while in earlier times, *ECOS* articles prompted the Habitats Directive, now being defended by NGOs against ideological attack. Another landmark was BANC's scene setting work for what became IEEM, the Institute of Ecology and Environmental Management, now the trade body for many practitioners. These days there is much fragmentation as conservation spans many sub-sectors, but BANC remains a critical friend and commentator while the conservation community evolves.

Describing BANC at 35, one of its trustees recently remarked: "We are a positive force… in networking the power of other creative minds, getting people to talk to each other, drop their formal boundaries - and escape from all those conference formats with their posturing and fundable position statements." These words were uttered amongst debate on how BANC's new 'revitalising conservation' campaign could take shape. Is revitalising conservation actually a mission impossible, given the conservation sector's dramatic dip in funds and the present hostile political vibes? There are different takes on the matter in this edition. Peter Shirley urges us to steer around austerity and work with nature, in whatever situation we find ourselves. Mike Townsend explains how to embrace concepts of natural capital if we want to occupy political ground that recognises 'environmental goods' – a necessary evil for some organisations. Meanwhile beyond the Westminster village, wildlife is doing its own thing anyway, as Mark Elliot's briefing on the clandestine Devon beavers reminds us.

So, onwards for BANC, with we hope, some mid-life vigour. Conservation is an infinite game, a process to continually guide and to learn from as nature transforms. We welcome your ideas on events and writing to bring to BANC's revitalising conservation agenda, to keep spirits up, and to create more buzz.

Geoffrey Wain

Freeing up nature – from ourselves and from market forces

Economic forces in the UK are increasingly ranged against the natural world. Given the current era of tight resources and hostile politics, conservation groups should rethink some of their own values and act strategically to make progress.

PETER SHIRLEY

Endless toil?

Nature conservation is an open-ended pursuit practised at every level, from the individual to the corporate, and by the public, private and third sectors. The balance of effort has inexorably moved in recent years from the public to the third sector, with public sector financial support often expressed in contracts and service level agreements, and the private sector responding in a variable manner to exhortations to help more and to damage less.

In an age of austerity it is well to remember, and capitalise upon, the fact that the most important resource we have is people, with thousands volunteering to help and many dedicated professionals working above and beyond the call of duty. The focus always seems to be on money though, and this makes it inevitable that when it is generally in short supply there are fears for the sector's ability to do what is needed.

Whilst very real, those fears may be unfounded, or at least exaggerated. Because conserving nature is an open-ended activity, those involved will always be 'short' of resources, including money. There is always more to be done, the job is never complete, and often it is difficult in any case to agree on what needs to be done. The amount of money is almost irrelevant: people and organisations will do what they can with what they have got and never consider it to be enough.

This is, in any case, relative. When the average Wildlife Trust had one member of staff and an income of a few tens of thousands of pounds the conversations were exactly the same as they are today when those, and similar organisations, employ scores of people and measure their turnover in millions of pounds. Admittedly in earlier days the policy and political context was very different and far more supportive. This is the rub: austerity is not the main problem facing nature conservation, it is a symptom of the disease of neoliberalism, the main tenet of which is that nothing should hinder free trade.

Beyond the golden age of nature conservation

The prevailing political orthodoxy is to continually reduce the state's involvement in, well everything. The concept of public goods unrelated to economic development, including

nature conservation and a high quality environment, paid for out of taxes, seems now to be completely rejected (with the notable exception of the sector's share of Landfill Tax). Admittedly the National Lottery has helped to fill the gap, but this is not the same as funding linked directly to public policy and voted on by elected representatives. There is inevitably a compromise between the Lottery's objectives and those of the applicants.

At the highest level we had what looks now to be the luxury of a well-founded and scientifically driven public body in the old Nature Conservancy Council (NCC). It initiated research and directed delivery programmes, supported voluntary organisations, acted as a strong advocate within government and generally oversaw the whole sector. Some may see this as paternalistic, a bit big brotherish, and so it may have been, but was that worse than that which we now have?

I have been reading Natural England's (the almost unrecognisable successor to the NCC) Corporate Plan. It is spineless and subservient to other interests. Max Nicholson must be turning in his grave. The Foreword makes everything look fine, with no mention of habitat or species losses (what some are now calling the decline of bioabundance), problems with neonicotinoids, badger culling or delays to designating marine protected areas. There is though quite a bit about helping business by simplifying regulations and helping with compliance. Later, in the section on planning the plan says: "(Our advice services are) … becoming more efficient and removing delay and uncertainty for developers and planning authoritie". With a developer, venture capitalist and Conservative Party major donor for its Chair, this approach should be no surprise. There is no mention of similar help for communities and campaigners.

Wildlife Management is one of the shortest sections in the plan and some of its contents seem to be code for 'we will make things easier for those for whom wildlife is a problem'. It's all about licencing and regulations. The Terrestrial Biodiversity section is more promising but statements like "(We will) … refresh our processes for the management and monitoring of protected sites, making them sustainable and their value understood…" seem to be more code for 'we will spend less money'. Again this is not surprising because both Natural England itself, and its parent department Defra, are losing millions of pounds a year from their already severely reduced budgets. The plan is not inspiring.

At the same time local authorities' budgets are much reduced. Where once they were both willing and able to offer financial support, employ a reasonable number of staff dedicated to nature conservation and parks and open spaces management, and to commission and adopt policies (such as nature conservation strategies) to protect local wildlife are now constrained from doing so. Take planning departments: they increasingly have to act according to central government dictat, and face fines if their reduced staff do not process planning applications quickly enough. Even if planning conditions are imposed upon developers there is rarely anyone to ensure that they are acted upon.

The growth trap

There is, though, a supreme irony in all of this. The folly (in every sense of the word) of London's Garden Bridge, a pseudo-green project, is attracting £30m of

government capital, and more than £3m per year of guarantees from Transport for London. Never has there been a better example of 'there's never any money for anything but there's always money for something'. How much could be done for nature with that £30m?

Despite this increasingly hostile working environment nature conservation organisations have, as touched on above, very successfully expanded. Lottery and Landfill Tax money has flowed, some large charitable trusts continue to favour them, and memberships (but see below), the organisations' estates, and their outreach activities have grown. They now have the pressures of sustaining these large establishments and expanded activities, whilst the neoliberal agenda means that competition is increased through, for example, exporting public bodies to the third sector. For instance British Waterways is now the Canals and Rivers Trust, and local authorities are keen to hive off open space management to independent trusts, with or without adequate endowments.

In recent years the growth of the main source of unrestricted income, membership, has stalled. Some charities increasingly desperate efforts to maintain this revenue stream are now attracting adverse publicity, bringing into question commonly used methods, such as trading in lists of potential donors and cold sales calls. Those innocent of malpractice will nevertheless suffer from the broad-brush media hysteria generated, both through public aversion and increased regulation.

A curious element of financial management is the way in which some organisations operate in relation to their financial reserves. I know of trusts who have more than a million pounds of unrestricted funds, but whose trustees are opposed to agreeing deficit budgets, even for limited periods. They are buying into the corporate sector's growth trap: if you are not bigger this year than last you are failing. Absurdly, at the same time the trusts campaign against the idea of continual and unlimited growth saying it is unsustainable.

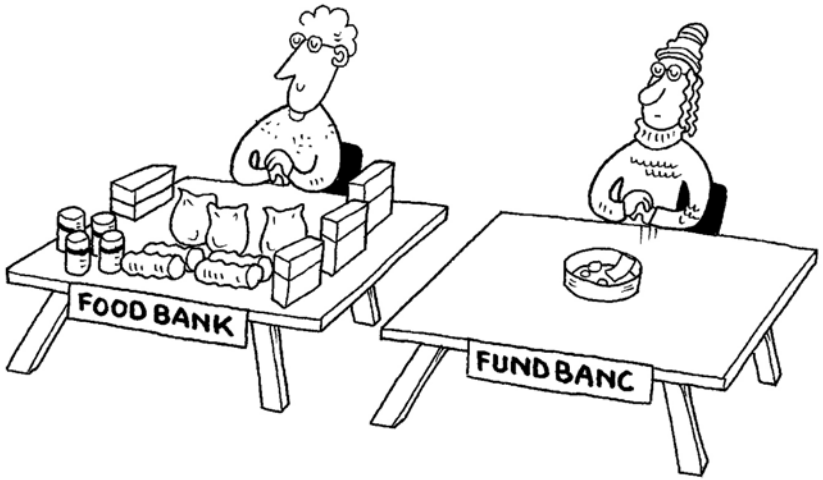
Back to neoliberalism – despite the name it is not, of course, new. Its antecedents are the *laissez-faire* policies linked to the development of world trade in the 18th and 19th centuries. It is the antithesis of social and environmental protection, development and progress. Put simply, those who wish to sell things wish to remove all barriers to so doing. There is no space here to go into detail, there is plenty of that elsewhere, but consider just four current initiatives likely to damage the natural environment.

Fitness check of EU nature legislation (Birds and Habitats Directives)

This is a thinly-disguised operation to weaken the Directives and make them less 'burdensome' for, amongst others, business, agriculture, and minerals exploitation companies. The consortium of 100 British conservation groups opposing the review say that it '… *represents the single biggest threat to UK and European nature in a generation'.*

The Transatlantic Trade and Investment Partnership

Hard to know where to start with this proposed free trade agreement between the USA and the EU. Its ramifications go far beyond the nature conservation sector,



NEIL BENNETT

it is an attack on democratic freedoms and social and environmental protection. At its heart is the ability of businesses to challenge national legislation, seen as being against their interests, in an international tribunal outside normal legislative systems. For nature the main dangers seem to be in the fields of oil and gas exploration, including fracking, the permitted use of more dangerous pesticides, and fisheries. Proponents say that where stronger legislation exists in Europe it will not be weakened. If though one of the provisions of the treaty is to challenge such legislation where's the protection in that?

Reform of the planning system

Following the July budget a 'Productivity Plan' was announced. Part of this is a change to the planning system whereby deemed consent will be given for building houses on brownfield sites. There is increasing recognition that such sites are often valued green spaces rich in wildlife. This, presumably, will be ignored. In addition local authorities may be sanctioned if they do not produce local plans or process planning applications quickly enough. It is well known that delays to planning applications are as much to do with poor preparation of applications by developers as to delays in planning departments, which are, in any case, denuded of staff. This stricture will inevitably lead to short-cuts and inadequate consideration of factors such as the protection of nature.

The Infrastructure Act

This is a mish-mash of provisions for, amongst other things, financing new roads (a further increase in which was announced at the time of the July budget), streamlining the planning process for major projects, and making it easier to recover oil and gas from beneath the sea and to undertake fracking on land. None of these things are likely to favour wildlife. In this context we still have to deal with HS2 and London's extra runway.

Curiously this Act also makes provision for the mandatory control of invasive non-native species. This produced the usual 'angels dancing on the head of a pin' debates about how to define a native species, and how the provisions impact upon the reintroduction of previously native plants and animals. There is more about this below.

Wild nature - a garden or an ecosystem?

Whether it considers itself rich or poor therefore I believe the nature conservation sector has to look to a radical re-appraisal of its approach to nature. This needs to be of the scale and scope of the changes over the last 20 years. During this period the sector has significantly moved from an essentially sites-based to a landscape-scale approach. Pioneered in towns and cities where, for a host of reasons, such a way of working and a broader outlook was always necessary, this is now mainstream activity. At its heart was the realisation that nature reserves, whilst still essential, were not up to the job they were given. Nature conservation has to be a joint effort in and with the wider community: wildlife and wild plants move through the landscape, whether in a season like butterflies and birds, or over centuries, like trees. The impact of climate change emphasises this mobility.

The step change now needed is to acknowledge that most of the 'natural' world, in this country and elsewhere, is a combination of a cultural artefact and nature's dynamism. It is time to focus our resources, depleted or not, on ecosystem functions and services rather than on whether or not the species' assemblies we are dealing with are native or not, and whether the habitats we treasure are man-made or natural. Two recent books exploring this aspect of nature conservation provide many examples of our traditionally muddled thinking. They are *'Where Do Camels Belong?'* by Ken Thompson (Profile Books), and *'The New Wild'* by Fred Pearce (see book reviews in this edition). Pearce provides evidence that 'pristine' primary rain forests are often secondary forests, and that the Serengeti is a recently developed landscape following the loss of domestic cattle to rinderpest in the 19th century.

We do not really need these books to highlight our inconsistencies and value-laden management decisions. From the ridiculous pool frog saga to promoting and protecting non-native species like brown hares, little owls and most cornfield annuals, to vigorously defending artificial habitats like coppice woodlands, hedgerows and hay meadows, whilst at the same time fulminating against non-native species and habitat destruction, there is no consistency of approach. It was not all that long ago that red squirrels were considered to be as pestilent as are grey squirrels now. As for invasiveness, there is a lot of evidence that this is a transient phase when the few species concerned first find new homes. The transience may, though, be over longer time scales than human lifetimes, and in any case many native species are also invasive.

Have you ever thought where a taxonomist would place nature conservation in the range of human activities? My guess is that it would be somewhere close to farming, forestry and gardening, ironically three activities we have alternately been at war or hand-in-glove with for a long time. They would be in the same order at least, probably in the same family. What is effectively farming of red kites in Wales makes the comparison with farming even closer.

Towards progress

In summary here is what I think the nature conservation sector should do:

Don't agonise over austerity, but to do what you can with what you have.

Counter threats to wildlife from those whose zeal for economic development would destroy it.

Prioritise supporting nature's functions rather than its components.

Reduce spending on 'controlling' non-natives, on high profile re-introduction projects (some will happen anyway because there seems to be a good supply of wealthy individuals willing to fund them) and on last ditch protection for species common elsewhere but in danger here.

Engage people in the nature we have rather than hanker after the nature we have lost.

Build from where we are rather than seek to recover that which has gone - free don't freeze nature.

Peter Shirley *is the Chair of the Wildlife Trust for Birmingham and the Black Country, a trustee of Landlife, and a former Chair of BANC. He writes about the natural world for the Birmingham Post. The views expressed here are entirely his own. petershirley047@gmail.com*

Bringing countryside to town, or greening urban areas? What are the priorities for connecting people with nature?

Photo: Pete Johnstone www.pj.elements.co.uk

Austerity politics – any place for nature?

The result of the election may have been a surprise, but it is not clear that the outlook for the natural environment would have been much different under any outcome, given the focus on the economy. All main parties had supported the role of the Natural Capital Committee, and the Conservatives specifically backed the role of the NCC in the development of a 25 year plan to rebuild biodiversity. Can natural capital accounting be inculcated into the workings of government in a way that will deliver for wildlife, or will squeezed budgets and political dogma continue to undermine the natural environment?

MIKE TOWNSEND

Responding to the new political landscape

Whilst a Conservative Party outright win was of course a surprise (not least to the Conservative Party), it's far from clear that the outlook for the natural environment would have been much different under any of the touted outcomes of the last election. The economic imperative which underscores the approach of all main parties has frequently relegated consideration of the natural environment, if not in the political rhetoric, certainly in the reality of delivery.

Austerity politics have driven restrictions to funding and a focus on the economy. Although the political narrative recognises the importance of the natural environment to a sustainable economy, Government sees it as a burden. When George Osborne said at the 2011 Conservative Party conference "we're not going to save the planet by putting our country out of business"[1] he reflected a more general view of the relationship between the economy and the natural environment; the latter as a constraint to economic growth and a source of bothersome 'market externalities'. This account has repeatedly undervalued the natural environment in decision making.

For Government and the public alike the natural environment has been seen as a concern for better times than now, less pressing and important than the economy, immigration, the NHS, schools and education, crime, terrorism and drug abuse.[2]

The National Centre for Social Research[3] in a report on social attitudes found an increasing number of people who felt that "we worry too much about the environment and not enough about prices and jobs today".

Adopting Natural Capital

Following the National Ecosystem Assessment in 2011[4] the Government established the Natural Capital Committee in 2012 to provide Government with independent advice on the state of natural capital. In manifestos for the election all the main

parties recognised the importance of 'natural capital' and lent support to the work of the Natural Capital Committee.

In 2012 the Office for National Statistics (ONS) *published Accounting for the value of nature in the UK*[5], intended to incorporate natural capital into the UK Environmental Accounts by 2020. The ONS strategy builds on a commitment made at Nagoya in 2010 under the Convention on Biological Diversity to build natural capital accounting into national accounting and reporting systems.

The Conservative Party Manifesto[6] said the party would work with the Natural Capital Committee to develop a 25 year plan to rebuild biodiversity. Understanding the way in which natural capital might be used in both national accounting and areas of policy is thus critical. This includes understanding how the value of natural capital is derived, what the strengths and weaknesses of that valuation might be and how it is applied in practice.

Whilst it may stick in the craw of those who see an intrinsic value in nature as reason enough to protect it, finding ways to demonstrate the economic value and importance of aspects of the natural environment may offer the best opportunity to ensure its protection and expand its reach, not least to the doors of the Treasury.

This is true both at a policy and practice level. For policy makers being able to demonstrate the economic advantage of a policy measure is the minimum consideration by those who control the finance. For practitioners, whether hard pressed local authorities delivering public services, water companies seeking to improve water quality, insurance companies looking to manage risk or farmers unwilling to release land to 'unproductive' environmental measures, showing that there is some kind of pay-off seems vital.[7]

The three main messages from the Natural Capital Committee second State Nature Report[8] reflect a language with which Government can equate (my emphasis in bold):

- Some assets are currently not being used sustainably. The benefits we derive from them are at risk, **which has significant economic implications**;
- There are **substantial economic benefits** to be gained from maintaining and improving natural assets. The benefits will be maximised if their full value is incorporated into decision-making; and
- A long-term plan is necessary to maintain and improve natural capital, thereby delivering wellbeing and **economic growth**.

Natural capital for real

The NCC second report recognised the importance of location to the delivery of natural capital benefits. By way of illustration two contrasting scenarios for the creation of new woodland were given. The first based on the establishment of woodland centred purely on the value of market goods would, by their calculations,

generate a net social loss, whilst new woodland located to take account of non-market values could generate a very significant net social gain.

The NCC third report[9] found a strong economic case for, amongst others:

- Woodland planting of up to 250,000 additional hectares. Located near towns and cities, such areas could generate net societal benefits in excess of £500m per annum;
- Peatland restoration on around 140,000 hectares in upland areas. This would deliver net benefits of £570m over 40 years in carbon values alone.
- Wetland creation on around 100,000 hectares, particularly in areas of suitable hydrology, upstream of major towns and cities, and avoiding areas of high grade agricultural land. Benefits cost ratios of 3:1 would be typical, with 9:1 possible in some cases.

Such locational benefits are also recognisable at a much more local scale. For instance the benefits of tree shelter belts within sheep farming systems which reduce lamb mortality, incidence of liver fluke and mastitis, but can also reduce surface water runoff, lessen diffuse pollution and provide wildlife habitat.

Identifying the location and level of benefit is critical for beginning to pinpoint the nature of the intervention. Are the benefits proximate enough and with clear property rights attached to be paid for by the market? If one can illustrate to a farmer that the benefits of shelter provide financial advantage in reasonable time scales, the action becomes simply one of good practice. If there is market failure to overcome, such as capital costs of fencing, might these form a better target for grant support?

The greater difficulty is in the delivery of public goods benefits; where there is a less clear link between those who have the property rights controlling delivery and those who actually benefit. Whilst there has been much talk about payment for ecosystem services, creating markets for exchange of these services has proved a more intractable problem than might have been hoped.

Not without dangers

An assumption of the natural capital approach is that it can be used to ensure sustainable use of resources and reduce environmental impacts by including these explicitly as a transaction cost within the market place. This should then drive innovation and technical advance to take account of the costs and benefits of currently un-priced public goods.

This maintains the idea that progress and economic growth are both desirable and possible and that these can continue to support a high material living standard; in other words, an adjustment of the current economic model.

The alternative view is that this is fundamentally flawed and that a market economy is inherently unsustainable. 'Natural capital' in this view, is a product of a discursive

shift in which nature is reframed in economic and financial terms. By reframing nature in this way it can be added to and offset against other forms of accounted capital and used in other economic instruments.

Whilst natural capital recognises the value of the natural environment and ecosystems in supporting the economy and society, critics suggest that the measures to deal with this reality fall short of what is needed. In particular the critique identifies the scale of externalities and the problems with their valuation.

Natural Capital Committee's position

The Natural Capital Committee's definition of natural capital exposes some of the unease felt with the notion of valuing the natural environment:

"…the elements of nature that directly or indirectly produce value to people, including ecosystems, species, freshwater, land, minerals, the air and oceans, as well as natural processes and functions".

First, natural capital must produce value. From which we can infer that the value must be felt or have potential to be recognised now. However, our valuation of natural capital is based on our incomplete knowledge of what might have value in the future. If the value of an element of natural capital changes – for instance if self-pollinating crops reduce the economic value of bees – does that element become less valuable and therefore more overlooked?

Second, it is a strongly anthropocentric definition based on maintaining value to people. Things which do not have value to people are not due consideration. The complexity of ecosystems and our knowledge and understanding of them creates significant difficulty in identifying what is valuable and what is not. In addition, a more ecocentric view would dismiss the idea that only that which is of value to humans is worthy of consideration.

Third, natural capital frequently requires the valuation of public goods. Since there is by definition no market for these goods their 'value' must be derived by reference to other sources or opinion. It can be questioned whether the complex aggregation of factors can be given a meaningful monetary value given the extent of externalities.

In fairness to the Natural Capital Committee it recognises many of these issues explicitly and say that it is…"absolutely clear that 'valuing natural capital' and putting a price on it are two very different issues" and that…" our natural assets are of infinite value because without them, life on earth simply could not exist".[10]

If Natural Capital is to be the way by which government protects and rebuilds wildlife and delivers other elements of ecosystem services then we should ensure that our own understanding of Natural Capital and that of the NCC is also known more widely: the approach should be a tool in decision making, not a catalogue price for bits of the natural world.

Understanding value

Natural capital is a conceptually useful and potentially important way in which the value of the natural environment can be recognised, protected and enhanced. It has been adopted in the Conservative party's manifesto as the way in which it will deliver the recovery of wildlife. It is an accepted approach of the other major political parties.

Even if its use will not halt the damage to the natural environment, it might be seen as a way to slow or mitigate some of the worst impacts of economic activity. It can also act as a platform for further reform to the economy and to national accounting which strengthens protection, recognises the irreplaceability and tipping points within some ecosystems, and provides a forum for debate on how the natural environment should be considered in decision making.

Regardless of the extent to which more sophisticated valuation may better capture the value of natural capital, decisions about how the natural world is protected and enhanced are political decisions. At the Woodland Trust, it is our role as a third sector organisation representing the interests of the natural environment to act as advocates and make the case. This suggests the development of stronger arguments based on a range of monetary and non-monetary values. David Cameron made much of "the Good Life", in his speech launching the Conservative Party manifesto[11]; this must mean much more than commodification of the natural environment and a truer representation of its wider values.

The real values from the natural environment and wildlife come not from any notional monetary value but from their fundamental biological and evolutionary importance in sustaining life on the planet. Understanding and communicating those values should take primacy over ever more sophisticated valuation techniques.

Back to austerity politics

In the coming years austerity politics is likely to both reflect the reality of straitened times, but also act as a tool for the imposition of a distinct political and economic approach; in particular the desire to shrink the state and expand the role of the market and private investment as the delivery vehicle for many natural capital benefits. However overcoming the barriers to private investment and ensuring it is targeted to greatest effect is problematic. For instance the restoration of upland peat and the creation of woodland for carbon storage require overcoming the barriers created by income foregone or necessary capital expenditure.

The combined risk of squeezed budgets and political dogma may mean that investment in the natural environment that would make sense both for wildlife and for the economy will disappear into projects which, in the long run, will have the opposite effect on both.

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Mike Townsend *is Principal Advisor at the Woodland Trust. The views expressed in this article are those of the author. miketownsend@woodlandtrust.org.uk*

Queen bees summer reign in Kent: Short-haired bumblebees were declared extinct in the UK in 2000, almost certainly due to the loss of wild flower meadows on which they depend. They were last recorded in Dungeness in 1988. Each year since 2012 around 50 queen bees from Sweden have been released on the RSPB's Dungeness reserve as part of a project led by the Bumblebee Conservation Trust, RSPB, Natural England and Hymettus. Consistent sightings of worker bees, as in photo below, over the last three years reveals that the queens have successfully nested and produced young, a strong indication that the bees are finding sufficient food to build colonies.

The project has support from over 100 land owners in the Dungeness and Romney Marsh area in Kent and neighbouring East Sussex. Around 1000 hectares of flower-rich habitats are being managed for the bees and other pollinators.

Photo: Nikki Gammans

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Conservation advocacy: can NGOs retain their voice?

NGOs and charities have perhaps never been more influential in UK policy formulation, but their ability to campaign and lobby is under pressure from politicians, regulators and the media. Besides advising government, nature conservation would benefit from its practitioners publicly defending their right to 'speak truth to power'.

GEORGE BANGHAM

NGOs have a growing role as political opposition

Formal political participation is at an all-time low. Fewer than 600,000 British people belong to political parties.[1] Yet several large NGOs today count their members in millions. Citizens tend nowadays to choose to passively support advocacy groups, rather than actively participating in political institutions like parties and trade unions. Several recent key policy developments have originated in civil society campaigns, such as stopping the sell-off of forests, pausing the spread of fracking, and reducing the extent to which NHS assets are sold off. This change is both a cause and a consequence of policy-making becoming ever more professional and privatised.[2]

Given that NGOs are today the main dissenting voices in the UK's democratic system, it is vital that they should remain free to speak out in public debate. The political tide in the past three years suggests, however, that campaigners for nature conservation should be concerned about their continued ability to speak out. Recent government-NGO relations have been the worst in two decades, and the new majority Conservative government has yet to reassure civil society that worse is not still to come. What are the prospects for civil society advocacy over the next five years, and how can campaigners prepare themselves?

Do politicians support civil society free speech?

Politicians now regularly accuse NGOs of following party-political agendas. Critics often confuse being 'political', i.e. holding a public opinion which some in power may disagree with, with being partisan. A 2014 study of MPs found 78% of Conservatives, 38% of Lib Dems and 23% of Labour MPs had a negative view of 'political' activity by charities.[3] Board members at the Charity Commission have explicitly sought to delegitimise the campaigning role of NGOs, one telling charities in late 2013 that they should 'stick to their knitting', and so deliver their services, and stop "push[ing] the envelope" with campaigns that question the causes of the problems they seek to alleviate.[4] This phrase was repeated by the short-lived Minister of Civil Society, Brooks Newmark, who stepped down soon after, in October 2014, due to an unrelated scandal.

It remains unclear how far the Charity Commission and the Government are committed to NGO free speech. Many large charities spent the latter half of 2014

- a critical campaigning period before the General Election - nervous about the Commission's impending verdict on a July 2014 Oxfam campaign that drew public complaints. Oxfam had used Twitter to publicise the results of research which found that a 'perfect storm' of coalition government policies was worsening several indicators of poverty in the UK. Immediately, the Conservative MP Conor Burns lodged a complaint with the Charity Commission. It took the Commission until December 2014 to issue its ruling on whether Oxfam had breached charity law. Its eventual view was ambiguous and unhelpful to campaigners. "The tweet could have affected the views of those who received it," it said, "and could be misconstrued by some as party political campaigning".[5] Oxfam accepted the Commission's conclusion that it "should have done more to avoid any misperception of political bias by providing greater clarity and ensuring that the link to the *Below the Breadline* report was more obvious". But charities remain uncertain as to how to avoid critics 'misconstruing' their work as partisan in the future.

NGO campaigns at election time

NGO campaigns before the 2015 General Election were more seriously affected by the January 2014 'Lobbying Act'. The Act rewrote the law on NGO campaigning at elections, and reduced civil society's ability to engage publicly in political debates in the months before polling day. In principle it merely controlled spending on campaigns intended to 'promote or procure' a party or candidate's success. In practice the Act's unclear drafting caused a 'chilling effect' across civil society, raising compliance costs for NGOs engaging in public debate and leading many to comply with the regulations of the Electoral Commission even if the law probably did not require it. The trustees of the Woodland Trust, for example, decided out of caution to register with the Electoral Commission, requiring the charity to submit reports on its spending every month, and every week for the 6-week short election campaign. Few other causes could have brought together the Countryside Alliance and the League Against Cruel Sports, or the Quakers and the National Secular Society. As a campaigner who met with all Ministers working on the Bill, I was struck that none had a clear idea of the problem it aimed to solve, nor exactly of who had designed it in the first place. Their best answer was to be concerned about the possibility - highly improbable due to strict UK electoral law - that USA-style 'super-PACs' might be used to circumvent election spending rules in future.[6]

The prospects for NGO political advocacy

After the election, politicians and media commentators remain confused about what constitutes 'party political' versus merely 'political' campaigning and advocacy. It is of course impossible to remove all ambiguity in this definition. But NGOs campaigning on issues that may attract political unpopularity will have to do their best to explain that their motives are not partisan.

The next few years of NGO advocacy are mainly threatened by the Charity Commission's plans to revise its guidance on campaigning. The current document, known as 'CC9', dates from March 2008. It permits registered charities to carry out a limited amount of political activity, so long as it is in furtherance of their charitable objects and that it does not become their sole and continuing purpose. The Commission's chair, the journalist

William Shawcross, intends to revise the document in 2015 or 2016. The risk is that this review will take a stricter interpretation of the case law on charity political activity, which rests largely on a 1982 High Court ruling on Amnesty International, together with more recent common law cases around the world. Some legal scholars believe judges themselves have taken too narrow a view of their ability to judge whether a charity's particular political stance should be regarded as partisan, tendentious or controversial. But this point is of little more than academic interest: campaigners for now need to make abundantly clear to politicians and regulators that the current guidance is sound and needs no substantial alteration.

Campaigners will also need to keep battling for public support. It is easy to confuse hatchet-jobs in the *Daily Mail* and the *Telegraph* for accurate snapshots of public opinion. But the public legitimacy of NGOs' work suffers when their fundraising practices, for example, are revealed not to live up to their own standards.

There is some cause for hope. During the passage through the Lords of a new Charities Bill in July 2015, Lord Bridges of Headley, a new government Minister, observed that "charities have always campaigned, which is as it should be in a free society, and charity campaigns have brought about much good".[7] Other personnel changes around government suggest a more conciliatory stance will be taken toward NGOs that campaign: Greg Clark replaces Eric Pickles as Communities Secretary, for example, which may lessen that department's recent tendency to stop funding charities which campaign to influence parliament or "attempt to influence legislative or regulatory action".[8]

The most successful NGOs are mobilising their support bases in ways that force politicians to listen. David Babbs, Executive Director of 38 Degrees, is careful to speak of his 2.5m-plus membership as "stakeholders, not donors"; the legitimacy of his organisation's campaigns rests on the fact that members both fund them through donations and participate directly in large numbers. During the Lobbying Act a Minister was surprised to be confronted, at a 38 Degrees meeting organised at 3 days' notice, by a town hall full of 90 people at 9am on a Saturday morning to discuss the Act. Of course the political consensus on 'austerity' has obliged many other organisations to rely increasingly on individual supporters rather than on grants from other sources. We are no longer in the Blair era of generous grants to civil society from a range of government departments. But NGOs that depend on this more democratised funding model are both more resilient and more legitimate; it makes their public voice easier to preserve.

Campaigners have a double challenge in the next parliament. Their usual battle is ongoing, to put across their messages and win support for their aims from politicians and the public. This is the bread-and-butter work of nature conservation campaigners. But the war will be lost unless they win the wider struggle for the legitimacy of their democratic role, and prevent the boundaries of acceptable 'political' activity by NGOs from shrinking any further. That means preserving the idea that nature conservation is a cause worth talking about, in an era of permanent austerity. It will be no mean feat.

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George Bangham *is an independent researcher and journalist writing about politics, civil society and ecology. Until June 2015 he worked for the Association of Chief Executives of Voluntary Organisations (ACEVO), where his role included co-ordinating their advocacy around the Lobbying Act. georgebangham@gmail.com*

Bringing conservation home - Gamlingay Eco Hub in South Cambridgeshire shows the worth of making environment and nature conservation messages real and relevant to people's lives.

Photo: Pete Johnstone www.pj.elements.co.uk

Finding funds for nature – muddling through in middle England

This article calls for a Royal Commission investigation into funding for nationally important heritage assets, including woodlands and nature reserves.

PETE JOHNSTONE

News that the Government will be cutting Defra's budget again this year comes as no surprise. There will of course be further cuts in the coming years which will mean less funding for the environment in England. Putting the Agri–environmental funding and the re-energised (or is it re-booted?) England coast path being managed by Natural England aside, there hasn't been any substantial Defra funding going into countryside access or nature conservation for some years now.

Shifting responsibility – good or bad?

This is nothing new to the environmental voluntary sector as they have seen the writing on the wall. An added pressure is government's haste to transfer state owned assets into the charity sector. The emergence in 2012 of the Canal and River Trust from the old British Waterways Board and the more recent break-up of English Heritage into Historic England and the English Heritage Trust has shown that the Government's role for safeguarding our heritage, painstakingly built up over the last 60 years, is now fast declining and being handed over, albeit with a dowry in some cases, to the charity sector to manage.

May be central government or its agencies should not be managing historic buildings as visitor attractions nor canals for holiday makers in the first place, and it was just a quirk of fate and history that led them to take on these responsibilities, as at the time there were no other takers for the work.

Perhaps government has got too big and it is time to slim down and focus on governing the country, while waterways, old buildings, art, historic landscapes, National Nature Reserves and even forests are for others to look after?

If that is the direction we are heading then there needs to be some broader government thinking and public consensus on how this so called divestment is going to be managed and be funded, in the short term and longer term. Otherwise we face the uncertainty of our heritage, our inheritance, being whittled away and passed down to the charity sector to manage in piecemeal fashion with no coherent strategy. Opportunism will reign and there will be consequences, including

Multi funding for multi-functional nature: Reach Community Orchard on the Cambridgeshire fens is a community asset for wildlife, for understanding the diversity and use of local fruit, and for people's quality of life.
Photo: Pete Johnstone www.pj.elements.co.uk

perhaps inconsistent standards of management and even different rights of access depending on the lead organisations for each asset or location.

Pressure on the funders – how to cope?

And, if the established voluntary sector says 'no' to taking on properties, land and staff because it will not be adequately funded by government for that task then, as is the case now, the old guard charities will be by-passed and new charities established to take on the new functions. The follow-on scenario is that we will see the continued rise in the number of charities and yet more pressure on grant giving bodies, such as the Heritage Lottery Fund, trusts and foundations and the general public. If the pressure to raise funds gets to boiling point (it's at simmering point now) then it is likely that grant giving bodies will tighten their priorities even further and the general public, who are generally sympathetic donors to charities and their causes, will be inundated in funding requests and will either lose interest or worse still, turn against the not-for-profits in anger.

Here's one possible solution…. In 1994 John Major's Conservative government created the National Lottery which to date has contributed a whopping £33bn to a range of good causes including the built and natural heritage. Two years later in 1996 the same Conservative government established the Landfill Communities Fund (LCF) as the first environmental tax in the UK which was introduced to increase the cost of landfill and therefore help reduce waste. Since its introduction the LCF has contributed £1.27bn to environmental projects including public parks, wildlife and public access projects, many of which would just not have happened without the LCF contribution.[1]

So can the present day Conservative government be forward thinking enough to learn from these two seminal ventures created in the 1990s to tackle the current problem of who should be responsible for the long term management of our state owned natural assets? And if the answer is yes then what would the solution look like? One practical charity led example is from Nesta[2] which is running an initiative to explore new ways of managing and funding local authority owned parks with its Rethinking Parks Programme.

National debate in a national inquiry

The uncoordinated disposal of state owned heritage is too big an issue for charities to sort out for themselves and it needs government resolve to seek a solution. A proper public debate and a Royal Commission to investigate the value of our state owned natural and built assets and to lay out possible options of future management and funding is, to my mind, the best way forward. This process has to be done in an open and transparent way and one that clearly thinks through the long-term solutions.

There is precedence to the idea in that 60 years ago in 1955 a Royal Commission on Common Lands[3] was set up to unravel the confusion over Common Land legislation. The Royal Commission report led 10 years later to the Commons Registration Act 1965 which allowed for the registration of common land and towns and village greens. This was by no means the end of the debate on common land but a vast improvement on what had gone on previously. Incidentally the setting up of the Royal Commission did not come by chance as it was the Open Spaces Society which had been pushing for it for some years. A fact which should not be lost on those charities today concerned with woodland and nature.

So if established, a Royal Commission on our state owned natural and built assets would no doubt take several years to report back but if we don't have this debate now and a clearly thought through process on the Government withdrawal then we may face a future of increasing management cuts to state owned national forests, nature reserves and finest landscapes to a point that they will be termed 'nationally renowned' in name only.

References and notes

1. Following the Autumn Statement of 2014 the government is undertaking to reform the LCF. The consultation closed in June 2015. The outcome is not yet known.
2. Nesta is an innovation charity designed to help people and organisations bring great ideas to life. Its Rethinking Parks Programme is working with 11 parks teams to counter reduced public investment in parks management.
3. The National Archives, online records on Common Land.

Pete Johnstone *runs PJ.elements, which helps social enterprises and charities with project management and community and environmental funding advice such as via crowdfunding.*
pete.johnstone@btinternet.com
This article is an updated version from one hosted at Miles King's newnature blog:
www.anewnatureblog.wordpress.com

The Caledonian Forest Wildlife Project lanched in Summer 2015. It is establishing 10 new red squirrel populations in the Highlands over the next three years. It will relocate red squirrels from areas of Scotland where they are thriving to remote forests in the north-west Highlands where there are no squirrels at present, but good quality habitat for them. It is coordinated by the conservation charities Trees for Life and the Highland Foundation for Wildlife.

Supported by the Heritage Lottery Fund, the project will see squirrels transported to carefully selected release sites in specially constructed nest boxes, lined with hay for comfort and warmth, and provisioned with peanuts for food and apple for hydration. These nest boxes will then be nailed to trees and their exit holes filled with moss – so that the squirrels can find their way out in their own time. Food will be provided for several months after release, to help the squirrels settle easily into their new surroundings.

At the donor sites, once a squirrel has been caught, the trap will be covered with a dark cloth to keep the animal calm and reduce stress. All traps will be checked at a maximum of two-hourly intervals, and all squirrels will undergo a health check by a qualified veterinarian, to ensure that diseased animals are not introduced into the new populations. No more than two squirrels will be taken from any donor site, so that their removal does not negatively affect the donor population.

Photo: Peter Cairns www.northshots.com

Conservation on its last legs – the prospect for rejuvenation

As a provocative on 'refreshing conservation' this article argues for a change of paradigm – to let die what no longer is vital in the world of nature conservation, and look to the seeds of new life.

PETER TAYLOR

Deathly secrets

Is UK nature conservation effectively a dead parrot? Of course it is still alive on the ground in our beleaguered land and marine nature reserves and agri-environment schemes. But we have to face the facts of life: organisms and organisations have a useful life-span and Nature herself organises the end of such things. They grow old, decay and die. In our less wild cultural and conceptual landscapes, we don't like to face death. Conservation is no different. There is much talk of rejuvenation, but I don't think fresh approaches in nature conservation will be easy. There are too many old forces inherent in the structure and too many employees dependent upon the industry that Conservation has become.

However, I would argue that 'rejuvenation' in the sense of something new and positive, is already happening – but not necessarily under the name of Conservation. Rewilding, for example, has grown from a fairly narrow focus upon restoring ecosystem dynamics, to a broader inclusion of wilder farming and forestry, educational and health-oriented projects, river restoration, wildlife corridors in cities and programmes for the deeper psychology of relationship to the land, wildness and nature. And many other strands of activity also embrace these wider links between nature and wellbeing. BANC has been in the forefront of this paradigm shift – organising regional networks and seminars, taking a cross-sectoral approach, and publishing the discourse, and all this despite a shrinking membership base and no outside funding. This is more than re-branding. It represents a more holistic and creative movement, solidly based in community, and with a holistic outlook on nature.

Creative agendas are out there

Thus, despite being weighed down by professional obligation, there are many signs of innovation amongst some groups. For example, with the John Muir Trust taking a more positive look at ecological restoration of the landscapes it has purchased and protected; the National Trust and Forestry Commission have embraced wilder themes such as naturalistic grazing in Ennerdale and Wicken Fen; the RSPB and Wildlife Trusts, along with the National Trust, are taking a lead with landscape-scale

NEIL BENNETT

management projects; the Woodland Trust is also experimenting with woodland grazing regimes in Scotland. Many of the above have collaborated with the Soil Association on a progressive 2014 report *Square Meal* relating food to health, agriculture and wildlife.[1] But generally, the larger organisations are only able to tinker, to slightly adjust their practices and modestly embrace a new sensibility – nobody is taking risks and dreaming of a strong grass-roots revolution in how we engage more holistically with nature.

It should be clear that tinkering is not enough. The general climate is one of losing resources and political influence at a time when new forces of degradation are arising, such as industrial structures for renewable energy in the countryside; and some old enemies seemingly resurgent, such as intensification of farming, the sale of public forests, housing pressures, port and other infrastructure developments. In such an adverse climate, the tendency is to stick to what you know best: to protect past gains, but with a pilot scheme or two to test the waters. There is some value in this caution. The forces ranged against conservation would exploit any lessening of focus on the protection of what has been gained over the past 50 years, but we do have to look closely at the dynamics of a failure to make the required impact on government policy and consumer behaviour.

Political commentators suggest there are no votes from prioritising environmental issues. Yet, there is evidence that the environment and wildlife are dear to the British psyche. The large memberships of the National Trust, the RSPB and the campaigning NGOs are testament to that engagement. So why is it that five million voters and a £500m per annum sector make no waves on the political scene?

The structural failures

The first prerequisite for effective change is to recognise the depth of failure. In the Conservation sector, loosely defined to include all wildlife organisations and landscape protection bodies, after 10 years of pilots in which different organisations have combined to produce landscape-scale projects, with the

National Trust, Forestry Commission and Water Companies to the fore, the main wildlife organisations are only now coming together to consider joint projects. But the difficulties encountered are both structural and conceptual. For example the remit of the RSPB, with an annual budget of £130m, is naturally focussed upon birds and bird reserves, the Wildlife Trusts on relatively small but numerous nature reserves, the National Trust on cultural landscapes as well as wilder land, and the FC only just manages to maintain its multi-purpose remit. There would be great power in all of these organisations working more closely together, combining resources, embracing new concepts that would engage a broader public and operating on a landscape scale that included other sectors – such as health, food and education. For that, there needs to be a more holistic ideology that goes beyond the conservation paradigm. Once united, a more coherent force would make its presence felt in the political world.

At county level, Local Nature Partnerships may be part of the way forward, but in their early years they have struggled to make waves, although examples such as Devon have embraced the health agenda well. Overall amongst the LNPs, a lack of resources may be holding them back, and they have had to play second fiddle to business and economic voices gingering the same range of public bodies.

Back at the national scale, there is a model for this kind of cooperative endeavour – it is in the Climate Coalition, where the wildlife bodies, most notably the RSPB and WWF, have taken a lead role, and now work together with aid organisations such as Oxfam. It is with great irony that I mention the Climate Coalition, given my own stance on the poor science of climate change, but it is a useful example of how an organised campaign with a simple message can get through to the political world. This 'green' lobby has actually unlocked *billions* of government subsidy for the environmental cause. The irony for me is that no member of the Coalition has the remotest sense of the impact on wildlife, community and indigenous peoples, that achieving their campaign goals will trigger, and indeed, already has triggered. I give one example, that of the Blue Heart of Europe Campaign concerning Balkan wild rivers and the rash of hydro-projects they face, including major proposals in National Parks. In 'normal' circumstances, none of these projects would gain finance, but there are vast funds available in European banks to fund private operators who are paid over the odds for carbon-free electricity (see Figure 1 map). As with industrial wind turbines, returns on capital of 12% are guaranteed for 25 years.

Whatever new coalitions are forged, thought must be given to the pitfalls of the media, simple messages, and the way campaign goals are evaluated. It is irresponsible to lobby for a goal and then walk away leaving banks, the private sector and beleaguered governments such as in Albania, Macedonia and Montenegro, to sort out policy on the ground.

The dark side of campaigning organisations shows itself when, having unleashed such destructive forces, they then gain more membership traction by *opposing* the consequences of their actions – as in the ongoing fight by the RSPB to protect Hebridean landscape and its eagles from extensive wind turbine proposals. I believe

Figure 1 'Green' hyrdro-development in wild regions of the Balkans http://www.balkanrivers.net/en/content/about-us

the strongest safeguard is to focus upon real community and change at grass-roots level first, and let this change speak to the political world. This is where the goals need to be set – on reducing consumptive demand at home.

Political prospects

A stronger local base does not mean less influence on government. A well-developed communications and lobbying network that was closely in-touch with proposed government legislation, as well as technical change and strategic thinking, could martial its members for internet lobbying, letters to MPs and major demonstrations. Rather than big organisations like the National Trust or RSPB having their own lobbying units, I would prefer a developed communication system with their members where each member then acts individually.

Necessary as it is, this system is still *reactive*, rather than creative. Thus, there needs to be an effective movement *from* the creative grass-roots outward. Trees for Life in Scotland is a wonderful example of what can be achieved by practical and cooperative endeavour (with the National Trust and Forestry Commission) coupled to excellent media material. This example is specific to wildlife and wild land, but the methods can be applied to practical examples closer to the centres of populations which lead much of the political agenda.

We need some new strategic and creative thinking that is more directly relevant to the political and economic agenda. For example, imagine that instead of new cities, we restructure the 'green' belt – in place of wild-lifeless fields of rape, corrugated barns, pylons and projected giant aerospace turbines, each city would have a 'hinterland' of landscaped eco-dwellings, passive solar, turf roofed, log-cabin

construction, with short-rotation coppice, new woodlands, ponds, wilder river margins, buried pylons, localised organic food production, good public transport links coupled to community vehicle rentals...where people can choose to leave the centres of cities for a less stressful, less consumerist life on lower incomes. There are over one million unemployed, several million poverty-stricken pensioners, hundreds of thousands of disaffected young people who if they could afford it, would live for their art or music or writing or computer graphics – but in low-cost communities, which could readily exist on the edge of the city.

To generate support for such a major change there would need to be pilot projects and good communication – that is, visualisation, in order not to engender mindless protectionism.

Instead of this – here is what the current Coalition for policy action will bring to the table – another ten thousand giant aerospace turbines, two hundred wood-chip power stations, five tidal pools with all the quarried rock it takes, and biofuels from Borneo, Kenya, Colombia and all the world's other biodiversity hotspots.[2,3]

Climate resilience – time for a policy grounded in reality

As I predicted in my book *Chill* there has been a major 'pause' in global warming. Contrary to some media reports, the heat is not hiding in the oceans – it is being dissipated both there and in the upper atmosphere. I further predict that within five years, the flat-line will be a slight decline in temperatures. At that stage, the pause or hiatus in temperatures will be a similar extent to the period of warming experienced from the 1970s to the late 1990s. This may be enough to more fully question the main climate models which dictate so much of the current focus on the topic. What then happens to the reputation of those who have claimed so much certainty in the science, especially many science institutions? And then to the bodies in the Climate Coalition that espoused this cause so strongly? There is a real danger that a right-leaning body politic will ride triumphant over the corpse of environmentalism, and never listen to any more 'scare stories' from the green-corner.

Peer-reviewed papers in solar science are warning of the potential for a new Maunder Minimum where the sun's energy declines and northern hemisphere temperatures drop significantly – as happened between 1400-1700 AD. The MetOffice is studying this behind the scenes. These realities of uncertainty require an *adaptive* response. If the conservation sector can get so heavily involved with broader policy issues such as energy supply, consumer demand and even climate science – then it is not beyond its remit to get involved with a real model for our future – one that integrates all the objectives of what used to be called sustainability.

We need to develop policy beyond a hopeless and vastly expensive mitigation via emission reduction. The concept of *adaptation* to inevitable change, whether warming or cooling, is one that the Climate Coalition could embrace, whilst reviewing the science properly, instead of promulgating what is a supply option, not a demand-reduction scenario (which never would make a media message). Barrages, biofuels and wind turbines affect landscape and undeveloped wild landscape that

is not renewable. Community, once destroyed, is also not renewable – especially not indigenous community now affected by massive hydro development as well as biofuel plantations. The focus needs to shift from the global to the local, where the issues are real and the players are accountable.

Current 'renewables' stand at about 4% of national energy demand. The EU has a 30% target by 2030 (and the UK a target of 80% by 2050). What would be the impact on wildlife and landscape of such a huge increase? We don't know because nobody wants to. This is a wilful blindness. It is a consequence of simple-minded single-message lobbyists leading the agenda. Nobody wants to challenge the development model, especially not the conservative conservation sector that has persuaded itself the model is alright, it just needs better regulation.

Restructuring

For most political parties, the priority is to sustain this development model, not to move toward a truly sustainable lifestyle. The ideology of plundering ecosystems to get wealth, and then repair them with the profits, is still current across the globe – most especially, of course, in China. All that is now happening is that 'renewable' energy technologies are being harnessed to the old development model – the world is following our example, cutting down the remaining forests, industrialising agriculture, moving people to cities, eradicating most of the large herbivores and all of their predators, powered not by fossil fuels but wind and palm oil. And all we have to offer is an econometric 'ecosystems services' accounting system for Natural Capital. That is not going to do it.

If *all* of the environment and wildlife groups came together with a major initiative that addressed the broader concerns of the centres of population – in particular, housing and the cost of living, healthy locally sourced food, and less mentally stressful work – this would act as a creative critique of the development model.

We must argue *for* Nature....*human* nature as well as animal and plant nature, where the true human being inherits a soul-enhancing and tranquil landscape, rich in wildlife; where most food is organic; water is recycled; consumption is reduced and with it energy demand. And we need new models of development around the world that safeguard these values. We need recognisable social programmes to reconnect people with Nature. The pilots already exist – we need to study them, communicate and lobby for them.

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Peter Taylor *is at peter.snowfalcon108@gmail.com*

Does conservation need an exit strategy? The case for minimal management

The spectrum of potential conservation philosophies contains the ideals of preservationists towards one end and rewilding at the other. A long-term antagonism between these two schools will almost certainly be to the detriment of non-human nature. This article suggests conservation management 'exit strategies' that would separate the impacts of active conservation from ecological process such as evolution, without undermining the short-term focus on preserving threatened species. It also explores the case for a more dynamic natural world, in particular by looking at what the field of ecological ethics can tell us.

JOE GRAY AND PATRICK CURRY

A century on – which conservation fashion?

What will be the state of Great Britain's mainland network of protected areas 100 years from now?

- A series of vibrant and expanded cores that are buffered by gentle-use zones and connected by wildways?
- An array of persisting isolated fragments, each managed to maintain a hand-picked set of cherished species?
- A scattering of privately owned reserves, whose sparseness bears witness to a political failing – in the face of the dual mounting pressures of overpopulation and overconsumption – to leave any of the island's landmass for non-human nature?
- Or something different still?

As alluded to in the third of these scenarios, the answer will relate, in part, to the extent to which human pressure on the land increases. But it will also depend on the effectiveness of conservation strategies and, perhaps most significantly of all, the evolution of the philosophy that underpins them. Regarding the latter of these, John Fryxell and colleagues, in *Wildlife Ecology, Conservation and Management*,[1] describe seven fashions that summarize the evolving and expanding set of objective that have been applied to protected areas over the past 150 years, starting out with the relatively simple desire to conserve scenery. The most recent addition to the set, which is presented as a 1981 quotation from Otto Frankel and Michael Soulé,[2] is "to maintain, hopefully in perpetuity, a highly complex set of ecological, genetic, behavioural, evolutionary and physical processes and the coevolved compatible populations which participate in these processes."

For the purpose of the present article, the spectrum of potential philosophies will be simplified into two schools:

- "Preservationists", whose overarching goal is to maintain viable populations and meta-populations of extant priority species within static or cyclical habitat states.
- "Rewilders", who not only advocate the reintroduction of extirpated species but also seek a landscape-level reshaping of our island's wilder areas that would allow a rekindling of nature's dynamics.

Evolution or cultivation?

The pages of this journal have, for many years, extolled the rationale for rewilding in Britain, and there are several admirable projects in various stages of maturity that reflect the discipline's ethos, at least in part. These include Trees for Life, the Cambrian Wildwood, the Carrifran Wildwood, and Wild Ennerdale.

However, the preservationist school, in practice, remains dominant in the application of conservation across the UK. As such, we are left contemplating the possibility of a baseline shift to a landscape in which a bird box or a reptile mat is considered as natural an element as a veteran tree or a well-sunned rock. And something else that might shift is the evolutionary path of non-human nature. In a recently published anthology titled *Protecting the Wild*,[3] Christof Schenck (Executive Director of the Frankfurt Zoological Society) cautioned that: "Human-directed conservation is changing species in the long run. This means that even in conservation areas, set aside for nature protection, humans take a lead in evolutionary processes, with limited understanding of the results."

Schenck's comment is made as part of a well-reasoned attack on the contemporary application of biodiversity as "justification for conserved cultivation." He goes on to argue: "What counts for biodiversity is the natural diversity of genes, species, and ecosystems. And all three levels are not static. They emerged from natural processes, and only by allowing the processes to continue will we be able to keep the biodiversity we inherited."

In other words, the goal of rewilders to rekindle nature's dynamics goes far beyond a nostalgic affection for untrammelled land to applying an enriched definition of biodiversity to the definition of thriving nature.

We would add to Schenck's argument the observation that humans in any career struggle to make impartial, emotion-free decisions, and that conservationists are no exception. The more actively that land is being managed for conservation purposes, the greater the scope there is for personal value judgements, unwittingly or otherwise, to influence the relative prospects of different species. We speculate that this might be facilitated by a greater potential success of fundraising campaigns targeting more visually appealing creatures.

So how might conservationists begin to disentangle themselves from evolutionary processes? We are certainly not advocating that all bird boxes be suddenly torn down

and every reptile mat shredded. Such tools not only provide potential lifelines for threatened species in anthropogenically degraded habitats but also, in the context of scientific experiments, represent invaluable means of standardizing data capture. Furthermore, a long-term antagonism between rewilders and preservationists will almost certainly be to the detriment of non-human nature, given the urgency of effective solutions that is driven by the imminence of a mass extinction event.[4] It seems that we cannot afford the luxury of protracted scientific conflict.

So is there another way? What if management plans for protected areas that are currently run with a preservationist remit were appended with longer-term goals that would allow the habitat to return to a self-willed state while supporting a rich and dynamic mix of species? With poetic licence, we might describe these additions to traditional conservation plans as 'exit strategies', although long-term minimal management goals is perhaps a more appropriate descriptor for our idea.

Lessons from ecological ethics

One way to appraise our idea is to examine what the field of ecological ethics can tell us. There were already stirrings of an awareness in pre-modern Western society that the moral considerations of humans extend beyond the sphere of our own species to other living forms. In the late 16th century, French philosopher Michel de Montaigne wrote:

> "There is a kind of respect and a duty in man as a genus which link us not merely to the beasts, which have life and feelings, but even to trees and plants".[5]

This idea of an extended ethical sphere resurfaced in the conservation community during the 1930s through the work of Aldo Leopold, a forest ecologist in the US.[6] In his *Land Ethic*, Leopold made a compelling case for the ethical duty of land managers to conserve and protect not only inhabitant species but abiotic components of the ecosystem too, including soil and water. Several variations on ecocentrism appeared in subsequent decades.[7]

As the gravity of the ecological crisis has become more apparent, it has also been realized that simply because humans are the relevant valuers, what they value need not be restricted to other humans. Readers seeking a contemporary statement are directed to an essay written in 2004, by Ted Mosquin and the late Stan Rowe, titled *A Manifesto for Earth*.[8]

A particularly important specification of ecocentrism with respect to the present article is as follows: ecological processes that spatially and temporally connect biotic and abiotic ecosystem components, including evolution, should also be given ethical consideration. So just as species have an ethical right to exist, they also have one for that existence to be dynamic.

Exiting to what?

Returning land to a self-willed state does not necessarily equate to an eventual absence of active management of any form. Anthropogenic climate change, for

instance, may throw up fundamental challenges to the viability of some species in their existing ranges over the coming decades that necessitate interventions of some kind. As another important example, we believe that exotic invasives introduced by humans should still be considered as being potentially in need of control, for the greater good of the ecosystem. Any persisting Rhododendron ponticum in a woodland, for instance, might be a candidate for continued active management.

In this latter aspect, our views differ from those expressed by environmental journalist Fred Pearce in *The New Wild: Why Invasive Species Will Be Nature's Salvation* (reviewed in the book reviews section of this edition).[9] In his introduction to the book, he states: "Conservationists who want to cosset nature like a delicate flower, to protect it from the threat of alien species, are the ethnic cleansers of nature, neutralizing the forces that they should be promoting."

A light-hearted example of how management interventions and ecological processes can become entangled. June 2014, Blean Woods, Kent.

Photo: Joe Gray

Critically, he sees intervention in controlling invasive species as being necessary only for human benefits, writing: "we should be clear that when we do this, it is for ourselves and not for nature." In contrast, while we are advocating a future for nature conservation with less active forms of management, we believe that a truly ecocentric outlook will, in certain cases, involve control of invasive species, especially when those species are a result of human interference, when their impact is non-benign, and when such control restores ecocentrically directed evolutionary processes.

Committing to long-term thinking and action

The idea of incorporating long-term minimal management goals – or exit strategies – into the conservation plans of today is proposed as a means of reconciling a remit of short-term protection with one of rewilding. If disentangling the active management of conservationists from nature's dynamic forces is not explicitly written into plans as a long-term goal, it is difficult to see how current nature hotspots will be properly incorporated into a wilder network of protected areas.

We do not wish to imply that the idea presented in this article should be universally applied. For instance, where there is a compelling reason to preserve cultural

heritage – which may be the case with some coppiced land, as just one example – then there would be a clear case of incompatibility. However, the idea is a practical one that can be implemented today under a range of circumstances, all with the goal of helping to get us, in the long term, to that series of vibrant and expanded core areas buffered by gentle-use zones and connected by wildways.

And the time-scale for enacting long-term minimal management goals? As quickly as funding and nature will allow.

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Joe Gray *is an MSc Forestry student at Bangor University with an undergraduate degree in Zoology from the University of Cambridge. joe@ecoforestry.uk*

Patrick Curry *is the author of* Ecological Ethics: An Introduction *(Polity Press, 2011). He has a PhD in the History and Philosophy of Science from University College London. pmc@patrickcurry.co.uk*

Rewilding in progress? The difference that grazing pressure makes at Bwlch Llyn Bach, Gwynedd.

Photo: Mick Green

Compassionate conservation - making the case

This article reviews Marc Bekoff's book Ignoring Nature No More*, and discusses the various human priorities which influence cruelty, harm and compassion towards wild nature and the animal kingdom.*

SIMON LEADBEATER

Different cultures, different values

Driving down the A1M in Hertfordshire to the Royal Veterinary College (RVC) I happened to hear BBC Radio 4's 'More or Less' programme which reported that 190 million animals are killed each day for human consumption.[1] One of our dogs, Shaka, had jumped out of the Land Rover, yelped, and was suddenly unable to walk, seemingly paralysed. He had not been himself for a couple of days, but this sudden collapse was very concerning. Our vet had recommended that he see a neurosurgeon at the RVC. I had some confidence; this is a state of the art facility and the very able people who work there had saved our dogs' lives on more than one occasion before. Shaka could not be at a better place.

My relationship with Shaka, the resources my wife and I were prepared to expend to make him well, his individuality and the value we attach to him, is a good place to start my review of Marc Bekoff's *Ignoring Nature No More; The Case for Compassionate Conservation*:[2] Bekoff is a prolific American writer on human relationships with nature and animals and he wears his heart on his sleeve. In the book he cites the following observation as a prelude:

> "No age has ever been more solicitous to animals, more curious and caring. Yet no age has ever inflicted upon animals such massive punishments with such complete disregard, as witness scenes to be found on any given day at any modern industrial farm".[3]

Shaka would have the best treatment available, but free-living wild animals fare very differently, as clearly do the 190 million farm animals killed daily, and indeed some dogs and other 'pets' in other cultures, as the Yulin dog meat festival in China trending on social media at the time of writing this review, amply testifies.

The scale of cruelty and harm

Bekoff's book's purpose is clear from the title; what it contains are a series of essays written according to a number of themes, such as ethics, conservation management, politics and economics, social justice, empathy and compassion, closing with discussions concerning culture, religion and spirituality. In these essays the authors highlight disagreements which might be holding back the cause of conservation,

real world (or as Lori Gruen puts it) *nonideal* world dilemmas,[4] and on whether culture and religion have had an impact on habitat loss and animal cruelty (such as in China – apparently not). The book's contributors suggest remedies to bridge gaps, *inter alia*, between animal rights activists and welfarists generally concerned with individual animals to conservationists, generally concerned with species, populations and ecosystems.[5] The book covers a panorama of issues and of styles; some of it is written too colloquially for my liking, even though I understand why it is Bekoff would say "frankly it's enough to make one sick, sad and depressed"[6] and he seems to repeat himself in his closing words.[7] Some essays contradict each other,[8] while in others I found myself having to read paragraphs more than once, which unfortunately was the case with the first essay by Vucetich and Nelson in which they argue "we… explain how the source of ethical uncertainty is our mistaken tendency to think that the morality of our behaviour should be judged more on the consequences of our actions and less on the motivations that underlie our actions"[9] and argue for a principle of ethical consistency (PEC).[10] For someone who recognises their own inconsistencies I rather rail against this. And as some of the other essays demonstrate, being ethically consistent, however important, is nowhere near as important as a dearth of ethics altogether, the objectification of animals, and the impact of economic activity. Some prescriptions I simply don't agree with, such as when Minteer, speaking of the bushmeat crisis, advocates "alternative sources of protein, such as intensively bred cane rats, cattle, and/or farmed fish".[11] This would just substitute one form of animal abuse for another, and as someone who has not relied on meat-derived protein for over 30 years I cannot condone intensively farmed anything. But agreeing to everything the 25 plus contributors say would be implausible, and in any event they do not all concur with each other.

This article cannot do justice to this book; it is something to be studied rather than just read. Expressed simply it is, as Bekoff says "eclectic and forward-looking,"[12] "raises numerous questions"[13] and solutions centre on developing "compassion and empathy"[14] in which animals are "treated better or left alone".[15] Bekoff and his colleagues achieve much by finding some consensus from occasionally sharply conflicting perspectives within one volume, and in identifying relationships and new dimensions to *cruelty*, by which I mean where the focus is on individuals, and *harm*, where the concern is with communities of animals and their homes.

The 'staggering proportions'[16] of cruelty and harm

What also comes across strongly is the scale of human incompassion across the globe:

- In Africa five million tonnes of wild animal biomass are extracted in the form of bushmeat each year from out of the Congo Basin forests[17] - that is perhaps the equivalent of 300 million animals being killed every year.[18]

- In 2010 the United States Department of Agriculture (USDA) killed or sanctioned the deaths of more than five million animals, including 113,000 mammalian carnivores such as wolves, coyotes, mountain lions, and bears. Nontarget animals also fell victim to leghold traps, snares and poison bates.[19]

- Half a million coyotes are killed each year, often using M-44 "coyote getters," which are basically IEDs loaded with sodium cyanide poison.[20]

- "Millions upon millions of wild animals are killed on our nation's [the United States] highways every year".[21]

- In Australia 28.7 million kangaroos were killed between 2000 and 2010 – this represents the largest commercial use of terrestrial wildlife for meat and skins anywhere in the world.[22]

- And in China hundreds of millions of wildlife species are kept captive for fur and related industries.[23]

These statements and figures establish the context for some of Bekoff's outrage.

Understanding the foundations of cruelty and harm

A key concept and phrase in the book I had myself tried to capture[24] is "shifting baseline syndrome", leading to a ratcheting down of expectations as people don't realise what is lost with each successive generation.[25]

One of the most engaging essays is Eileen Crist's 'Ecocide and the Extinction of Animal Minds' in which she argues that an "extinction spasm and ecological unravelling"[26] is coinciding with a new understanding of the "hitherto-unrecognised richness of animal minds".[27] She goes on:

"Yet there is an urgent connection between the contraction of life's diversity and the dawning appreciation of animal minds: just as we are beginning to recognise that we share the Earth with beings of extraordinary physical and mental complexity, we are losing that shared world".[28]

Crist's central argument here is that the 'denial or disparagement of animal minds' is the reason apparently nonsentient domains such as forests, rivers, any landscape in fact, can be exploited for human ends because the inhabitants are "devoid of agency and experiential perspective":

In our time, the interface between ecocide and animal minds is tragic and ironic. Just as humanity is beginning to acknowledge and document a largely unknown world – the inner world of animals – that very world, in its diversity of forms of awareness, is coming undone.[29]

This is powerful stuff and I like the connections Crist makes, and surely it is true; we cannot be unkind to objects. In my first article for *ECOS* I quoted Darwin, who suggested that the difference in minds between people and animals was one of degree not kind,[30] and Bentham, who argued that the capacity for suffering was the vital characteristic that gives a being the right to equal consideration.[31] I went on to cite the work of Bekoff and Pierce, a scientist and philosopher respectively, who suggested that "new information that's accumulating daily is blasting away

perceived boundaries between humans and animals"[32] and argue that animals have the capacity for moral lives. Since I wrote that back in 2011 I am convinced that Bekoff and Pierce are right, that we are learning more about the extraordinary capabilities of animals we did not know before, as evidenced in each new BBC documentary! Nurse sharks, for example, make friends for life[33] – which is something few of us achieve. One aspect of this improved understanding concerns individuality. Liv Baker in 'Why Individuals Matter' points out that some reintroductions fail because the individual personalities of the animals concerned are not considered, and that a complement of personality types is required. She emphasises the trauma involved in capturing, handling, and transporting animals; my experience of moving house twice within one year tells me that this can be very stressful, and her message is that from an animal welfare and conservation perspective animals need to be considered as individuals.[34]

Why the opposite perspective is often adopted is explained by Dale Peterson in 'Talking about Bushmeat'[35] in which he points out that in parts of Africa the word 'animal' and 'meat' mean the same thing. He also challenges a canard I have often been uncomfortable with, that the reason for increasing environmental problems is that people have become disconnected from nature. Most of the people I know connected with nature, that is to say hunters, feel no compassion for animals, and certainly in Africa the approach is quite different: "to break the legs of a quivering liquid-eyed forest antelope might seem cruel to you and me, but to a hunter in Central Africa, it's a reasonable way to keep the animal in place and the meat fresh simultaneously".[36] I liked the combination of Peterson's description of the bushmeat markets and his discussion about how easy it is for westerners to condemn, though I felt he let himself down when he implies that because apes are close to us that rules them off the menu,[37] whereas presumably other animals remain on. In a sense he has written this without being informed by some of the other essays in Bekoff's book. Peterson's essay is compulsive reading, but not for the faint hearted: Conrad's words 'the horror, the horror' kept speaking to me, and I felt the next essay by Ben Minteer advocating a pragmatic approach rather than trying to impose a ban on bushmeat, was trying to make a virtue out of a necessity.[38] I also came away not convinced by moral relativism. I recall reading Douglas Adams' description of his first encounter with a large male silver back gorilla; his experience was, he said, "vertiginous".[39] Objectively gorillas (and other animals of course) cannot be reduced to meat – that is to deny them their capacity to experience life, their volition and moral agency, and above all to ignore their suffering. Significant numbers of people, in this case the hunters and consumers of bushmeat, just cannot 'see' this,[40] and helping them to 'see' would be a near insuperable challenge.

I was less persuaded by Bron Taylor's view that 'ecospiritualities are growing globally and presage a long-term and environmentally salutary trend'[41] referring to human cultures characterised by animistic, polytheistic and pantheistic worldviews which coevolved with the natural world without diminishing it.[42] What remains of relict societies tends to excuse traditional hunting techniques, in the form of bludgeoning, stabbing, snaring, all of which maximise suffering, such as the killing of Dugongs in Australia, a more harmless creature one could not imagine.[43,44] My faith in how

traditional societies lived sustainably was rather punctured by Dave Goulson quoting evidence that native Americans, far from having an environmental ethic and avoiding over exploiting-resources, in some cases hunted bison by simply stampeding herds over a cliff and only eating from the carcasses at the top of the pile. His point is that humans have not changed in their relationship to exploiting nature and ignoring the suffering of animals; we have simply learned how to industrialise the scale of our exploitation.[45] And I am also not persuaded that not being connected to nature makes us enjoy it all the less. I think the opposite; we are one of the few species which can enjoy nature because we are not subject to it, by which I mean we are not in constant fear of being predated or of constantly needing to find food – as such we can enjoy nature and develop spiritual feelings towards it. One of my abiding memories of Corbett Park in India was of seeing what Jim Corbett called a 'jungle bunny' – a type of Muntjac Deer – drinking from a water hole. The constant fear it exhibited was palpable, owing to the ever present danger of ambush from a tiger, leopard or other predator. The enjoyment of nature for prey species must have its limits.

NEIL BENNETT

The principal causes of *cruelty* and *harm* in the modern world

We are informed that it is not traditional Chinese and certainly not Indian cultural beliefs[46] which contribute to animal cruelty and the removal of habitat, but that the "Abrahamic concept of land…a commodity belonging to us"[47] and the Christian axiom that "nature has no reason for existence save to serve man" has.[48] Additionally, the 'differential imperative' dominating western thought in which Descartes exalted humans with our 'rational souls' above nonhuman animals (NHAs) because the latter only possess a 'sleepwalking modality' or comprise 'wound-up living automatons', allows them to be killed or displaced without reservation.[49] But whatever foundations religion, philosophy or culture may lay, economic development and population growth seem to change everything, be it an exponential increase of what was already occurring (such as killing animals for bushmeat as discussed by Peterson and Minteer) or qualitatively changing the impact

people have on the natural world or their interaction with NHAs. As Daniel Ramp *et al* report, humans impact the lives of wild animals "primarily by altering landscapes through the removal of habitat for human dwelling or resource production",[50] or as Brian Czech says "the habitat destruction human beings cause is virtually always a result of economic activity",[51] irrespective of the economic system, as David Johns observes.[52] In this connection Li, writing of China, explains that the 'reform era' – when economic growth was prioritised from 1978 onwards - has led "cruelty to wild animals to reach an unprecedented level"[53] with shark finning, bear, tiger and fur farming all becoming important business activities. For example, bear farming, in which 10,000 Asiatic black bears have their bile extracted from an open wound in their stomach, is worth 100 billion yen (over £10bn) each decade.[54]

It is not just about ignoring Nature

Brian Czech begins his essay by writing "…the most important source of wild animal suffering is habitat destruction"[55] and he goes on to explain that in these circumstances animals die in more protracted ways than if through predation or being killed by human hand. This includes malnutrition, dealing with the loss of cover and the consequences of migrating into other territories. Czech's insight made me realise what Bekoff's book is really about, and indeed what campaigners for conservation and animal welfare both share even if unwittingly – to *minimise suffering*. The reason habit is considered a resource, and animals commodities which are then farmed, hunted, and frankly tortured in some more extreme cases, is because their suffering is not recognised. And the reason suffering is not recognised is the absence of empathy towards NHAs. Perhaps not my favourite essay, but Vucetich's and Nelson's discussion concerning empathy, in which they state that empathy is not an emotion, but "a capacity that depends on objective, empirical knowledge... about the conditions and capacities of others (to flourish and suffer)" seems aptly perspicacious. Put simply empathy is required: "To treat others only as one would consent to be treated if one were in their same situation".[56]

This brings me back to Shaka. People often express their greatest empathy and love on their companion animals, dogs, cats, and especially horses according to Gabriela Rose.[57] Waldau correctly describes some of the adverse consequences of the affection people have for their 'pets,' the suffering inherent in the pet industry, how recreation with dogs, for example, can harm wildlife sites, and so on.[58] But my biggest concern, and following Vucetich and Nelson an unacceptable ethical inconsistency, was highlighted by Singer in the preface to his 1975 edition of *Animal Liberation*. Here he describes being invited to tea by a lady who likes animals; she talks lovingly about her pets but offers her guests pork sandwiches without the slightest sense of inconsistency. To my mind, if I am concerned with Shaka's suffering, and will spend significant resources to alleviate it, then I should be concerned for the suffering of all animals not just the ones I happen to directly care for. And that is why I agree with the fundamental premise of compassionate conservation – that in other words conservation, which is generally associated with management on a habitat scale involving communities of animals and species - must be guided by an empathy for individual animals.

Nature at our service?

Bekoff concludes by asking "can we create a good Anthropocene?"[59] This is a word coined by Paul Crutzen which denotes how humans have come to completely dominate the world, for example, by transforming up to half of the world's land surface.[60] Bekoff's book provides plenty of evidence to the contrary however much his essayists attempt to provide solutions. But I recently found one source of hope from perhaps an unlikely source. The theologian, Andrew Linzey, argues against much traditional Christian thought, invoking Robert Runcie, the former Archbishop of Canterbury, who stated that boundaries were becoming unclear, particularly when naturalists "detect in non-human creatures subtleties of behaviour and complexities of communication which, until recently, would have been thought unique and exclusive of humans".[61] But what Linzey says does confer the uniqueness of humanity "consists in its ability to become the *servant species*".[62] What this says to me is that human beings can use their complete domination of the earth to continue to exploit, extirpate and exterminate – to behave in ways which essentially define the Anthropocene. Or, that domination can be converted to service. Clearly the authors in Bekoff's book share this service ethos, albeit not necessarily the rationale.

Bekoff successfully pulls the book's varying themes together in his plea for compassionate conservation in his closing words; trying to overcome obstacles, which well-meaning people themselves create through their different worldviews and perspectives, is invaluable. Am I convinced about some of the solutions put forward in this book? No. And do I like all the essays equally? Also no. Have I learnt something important concerning the different dimensions of cruelty to individual animals and of the harm to their communities and homes? Without doubt.

All nonhuman animals, whether living largely solitary lives or forming groups or enormous herds and flocks, are individuals "of aware beings shaping and adorning the world-as-home".[63] We need to revoke 'human-animal apartheid'[64] and to begin treating animals as we would wish to be treated ourselves.

Shaka is doing well.

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60. As discussed by Kolbert, Elizabeth (2014) *The Sixth Extinction, An Unnatural History,* Bloomsbury, pp. 107 - 108
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Simon Leadbeater *is a woodland owner in Hertfordshire.*
simon.leadbeater@btinternet.com

Gull compassion?

A great black-backed gull swallowing an eel along the River Thames at low tide near Lambeth Bridge. Meanwhile summer 2015 has seen more local authorities announce management problems with lesser black-backed gulls and herring gulls, which can become particularly aggressive during their nesting season and when rearing young. Gloucester City Council oils about 1,000 eggs each year to sterilize them due to the number of businesses having associated roof and gutter problems. Such egg oiling occurs on the roof at Severn, the Gloucester-based printer and design company where *ECOS* has been printed for many years and where digital copies are still produced for print-on-deman orders. Natural England recommends that local authorities develop a long-term management strategy, using a package of measures, to keep lesser black-backed gull and herring gull numbers in check.

Photo: Tony Canning, London Wildlife Trust

Return of the beaver – lessons from the River Otter

In ECOS *35 (2) 2014,[1] Derek Gow outlined the proposals by Defra officials to trap and remove the wild-living beavers on the River Otter in East Devon. Since then a great deal has happened, culminating in the licenced release of beavers back into the English countryside in March 2015. This article discusses recent progress with the return of beavers to Britain and draws lessons from events linked to the River Otter saga.*

MARK ELLIOTT

At dusk on Tuesday 24 March 2015, the second pair of Eurasian beavers (Castor fiber) were released from their transport crates back into the lower reaches of the River Otter. This marked the end of a significant campaign by local residents and national experts to protect the breeding population of Eurasian beavers that had established themselves in this lowland English river for the first time in maybe 400 years.

It now appears that beavers had been living quietly on the river for maybe as long as eight years, having presumably escaped from a nearby collection, or been illegally released. In the early years, sporadic signs of activity could be detected by the trained eye, but generally their presence appears to have gone largely unnoticed. The local BBC news programme, Spotlight, showed occasional footage of the beavers living on the river otter,[2] [3] but it wasn't until 2014 when local retired environmental scientist Tom Buckley managed to capture footage of young beaver kits that people really start to take note.[4] There is some uncertainty about exactly when beavers went extinct in England, but the presence of a breeding population was a significant event and it resulted in pressure being applied to government ministers, not least by the Angling Trust, for the animals to be removed.

The disease risk

Concern had been raised about the risk that the animals posed of importing the Taenid tapeworm *Echinococcus multilocularis* following a case of the disease being found in the liver of a dead captive imported beaver in 2010.[5] This tapeworm is a very pathogenic, parasite found across central Europe, and causes alveolar echinococcosis disease in humans. The definitive host of the disease in Europe is red foxes *Vuples vulpes* but the intermediate hosts are rodents, such as beavers, which ingest the eggs. Only if the infected rodent's liver is then scavenged by a fox, can the tapeworm complete it's lifecycle. It therefore cannot be passed between individuals, and the only potentially infected beavers living wild in the UK must have been wild-caught in a region of the world such as Bavaria where the disease is present, where less than 5% of beavers have been found with liver lesions consistent with the disease.

Following the identification of this case in England, Defra produced a Qualitative Risk Assessment in 2012[6] and concluded that the likelihood of an imported beaver being infected and resulting in the establishment of *E. multilocularis* in wildlife was considered low but uncertain due to the factors involved. As well as the high impact of the disease in affected humans, there could also be a significant impact on UK's PET travel scheme, if the UK lost its disease-free status.

Vets from the Royal Zoological Society of Scotland giving a Devon beaver its health screening including checking for parasites.

Photo: C. Nick Upton/Naturepl.com

The report went on to recommend that the only suitable risk mitigation measure would be to source beavers from either captive bred populations in the UK or from countries which are currently free of *E. multilocularis*. As the origin of the River Otter beavers was uncertain, government concluded that the most sensible course of action was to remove the beavers from the wild.

Local support for the beavers

However Defra had underestimated the local strength of feeling in support of the beavers. The residents of Ottery St Mary and the surrounding area had taken such a liking to their beavers that Defra's proposals galvanised them into action, and campaign posters could be seen in local shops and on the riverside footpath. At a public meeting hosted by the Devon Wildlife Trust, a packed village hall expressed overwhelming support for their beavers to remain. One person asked about the impact on trees citing the very different Patagonian situation, but the vast majority of people and their local elected representatives appeared keen that the beavers should stay.

The River Otter catchment is an agriculturally productive landscape and feeling amongst the farming community was more mixed. However the owners of one of the key farms on which the larger group of beavers had established a territory were very positive. Although a large and productive dairy farm, they also have a small "glamping" business and the potential of the beavers to attract more holidaymakers was not lost on them. They were happy to publicly stand up in support of the beavers, which was a critical factor. Another key landowner in the valley is the Clinton Devon Estate, which owns a large part of the valley, including the second beaver territory. Clinton Devon Estate adopts a long-term perspective to land-management. It wants management strategies in place to manage any potential future conflicts. It has argued that in 20 or 30 years when the animals would have spread, landowners need to address any conflicts without having complex legal or social obstacles. This view was shared by many of the other landowners in the valley who, while they may not have been supporters of the beavers, were not necessarily antagonistic towards them as long as they were able to deal with any problems that the beavers caused.

What these landowners didn't want was 'another badger': an animal they perceived to be causing them a problem without the legal mechanism to control them. The timing of the issue was also a factor in the eventual outcome, with the pilot badger culls underway in nearby Somerset, and teams of hunt saboteurs and other animal rights activists threatening to come down and disrupt any attempts by Defra to control the beavers. The media coverage at the time made this link between the two issues, and with the badger cull such a live matter in the approaching general election, the politicians were clearly aware that a 'beaver cull' might not attract many voters.

Proposing a solution

The Devon Wildlife Trust had argued that although this was clearly not the correct way to go about re-introducing a species, it was a perfect opportunity to study the effects of beavers in a productive lowland English landscape. Could we accommodate this keystone species in our crowded island, and if so, what measures could be taken to mitigate any of the actual or perceived negative impacts on local landowners, or managers of infrastructure such as roads and drainage ditches? Or maybe the potential benefits to local tourist businesses and other wetland species would outweigh any assumed negative effects?

Following direct talks with Defra, it was proposed that the Devon Wildlife Trust apply for a licence to re-release the beavers back into the wild, and take responsibility for the beavers' actions. Although this course of action was proposed, there was certainly no firm commitment that a licence would be granted. Government ministers had made no secret of their opposition to beavers in recent years, siding instead with organisations like the Angling Trust which opposed any return of beavers.

However as the campaign progressed and the public pressure continued unabated, with animal rights groups patrolling the riverbank looking for signs of trapping, optimism started to grow slightly. A timely legal challenge by Friend of the Earth

A pregnant female beaver is released back into her territory at the River Otter in March 2015.

Photo: Nick Upton / Naturepl.com

highlighting some legal ambiguities added additional pressure on ministers and a clear turning point came on 13 November when Defra announced that it would allow Natural England to determine the licence application on scientific grounds.[7]

Finally, after extensive additional information was provided to supplement a comprehensive licence application, the Devon Wildlife Trust was granted the licence in early February 2015.

Trapping and health screening

With the licence in place, a team of ecologists from the Animals and Plant Health Agency (APHA) began work to round up the beavers. With the heat taken out of the issue, they were able to carry out their work unhindered and their considerable expertise with camera traps revealed the presence of two distinct family groups, made up of two adult pairs and possibly five younger animals.

They rounded-up five of the beavers and took them to a holding facility nearby. As only animals wild-caught and imported from infected regions could be carrying *Echinococcus*, once all of the adults had been rounded up, it was decided by Defra that the trapping could cease, and any remaining animals could remain. Then on a chilly Monday morning in mid-March, a team of expert vets from the Royal Zoological Society for Scotland set up a "field hospital". They carefully anesthetised

the beavers and gave them a detailed health check, exploring their internal organs for signs of the tapeworm, and any other health problems. A wide range of samples were taken, and over the following two weeks, the results of a whole barrage of tests came back confirming they were all fit and healthy. At 8am on 23 March the last result, for tularemia, came back from the laboratory in Norway, and that evening the first family of beavers were released back into the territory from which they had been captured a few weeks previously.

Beavers back in British wetlands

It is hard to overstate the significance of this event. The reason why ecologists get so excited about beavers is because of their amazing abilities to engineer their environment to the benefit of so many plants and animals. They are a true keystone species. Beavers feel safest in water, and where deep water doesn't exist, they create it so they can explore and exploit their territory. In headwater streams and wetlands rich in willow, they build dams and canals to create the depth of water that allows them to move safely into new areas.

In the lower catchments they can be less industrious, and have much more subtle effects. The River Otter is a small river; only 10m wide in the lower reaches, but its flow has a significant groundwater component, ensuring that even in dry summers there remains a reliable flow. For this reason they haven't needed to create any dams or canals, instead confining their behaviour to burrowing into the soft sandy banks, and coppicing a small number of bankside willow trees, but otherwise their effects are unremarkable.

The same has also been true on parts of the much larger river Tay in Scotland where the beavers have gradually re-colonised the catchment, having presumably escaped from private collections. There are now in excess of 150 animals[8] living across much of the Tay catchment, and having a wide variety of effects. Alongside the main river their field signs are subtle, but in smaller streams and ditches in the catchment they are creating large dams, flooding low lying woodlands and re-creating marshes and other wetland habitats. In some flat, intensively farmed parts of the lower catchment, small dams have a significant effect on water levels in land-drainage ditches, and there have been examples where their burrows have even undermined the integrity of major embankments maintained by the farmers to drain their floodplains.

On the other side of Scotland in Knapdale Forest where the official Scottish Beaver Trial has been taking place, the beavers were introduced into a series of lochs and small streams. Again the presence of large areas of deep water enabled the beavers to feed around the margins of the lochs and in strips of woodland around the banks without having to create many dams.

Beavers are very adaptable. Their effects are dependent on their location within a river catchment. They are also very mobile, and are quite capable of travelling long distances along the river system to find more suitable habitats. On the River Otter, the beavers appear to have migrated down into the lower reaches of the river system,

A pregnant female beaver slips back into the River Otter.

Photo: Nick Upton/Naturepl.com

where the volume and reliability of the water provides better refuge than in the upper reaches and tributary streams. There is even some suggestion that historically, one animal has moved down to the lower reaches in the summer and back upstream in the winter months. We don't yet know how the beavers will re-colonise the wider catchment. Maybe it will only be when the carrying capacity is reached in the lower valley that they will start to move up the side channels or into the headwaters and some of these more interesting and challenging behaviours are observed.

The future

We are now at a significant point for beaver re-introduction in Britain. Towards the end of 2015 the Scottish Executive will make a decision about the future of the species in Scotland. It will have a number of options open to it, ranging from full scale re-introduction including adding additional animals to boost the genetic diversity, to the complete eradication of the species from Scotland. At the same time Defra may change the legal status of the species in England and Wales, potentially even giving it full legal protection under Schedule 2 of the Habitats and Species Regulations 2010. This would give the River Otter Beaver Trial added impetus to quantify effects of the species on the people and wildlife in this spectacular English landscape, trialling techniques for managing any conflicts that occur, and demonstrating that beavers and people can live side by side in harmony.

Photo: C. Nick Upton/NaturePL.com

STOP PRESS

In late July 2015 it was confirmed that one of the released females successfully gave birth to three kits (one pictured above) who all seem to be thriving. They first emerged from their burrow in late June, and have started to feed on nearby willow.

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Mark Elliott *is the Devon Beaver Project Lead for the Devon Wildlife Trust. The River Otter Beaver Trial is led by Devon Wildlife Trust working in partnership with University of Exeter, the Derek Gow Consultancy, and Clinton Devon Estates. Expert independent advice is also provided by the Royal Zoological Society of Scotland, Professor John Gurnell, and Gerhard Schwab, an international beaver expert based in Bavaria. In addition to the generous support of DWT members and others who have donated to our appeal, the trial is also funded by The Royal Society of Wildlife Trusts (RSWT). The ongoing research work at the enclosed beaver trial near Okehampton is funded by Westland Countryside Stewards. melliott@devonwildlifetrust.org*

Electric energy: BANC nature tweets

BANC has begun a series of Twitter debates, opportunities for people to swap views on hot topics facing conservation. This article summarises some of the main exchanges from the first sessions on politics and on land rights.

EMILY ADAMS

The conservation sector has taken a battering politically, practically and financially. Many NGOs are struggling to make ends meet and continue their campaigning (see George Bangham's article in this issue), hard-fought legislation is under threat in the UK[1] and internationally[2] (to the horror of conservationists[3]), and individuals are facing pressure to produce more for less. This is why BANC is calling for a 'revitalisation of conservation'.

Faced with these issues, BANC is creating a greater on-line presence. As part of its digital switch over of *ECOS*, BANC got more active online, starting in July 2015 a series of Twitter debates on the theme of 'revitalising conservation'. These allow BANC to engage within and outside its membership to see how we and others can help keep conservation alive, kicking and enthused.

Social media and computer games: procrastination trap or conservation solution?

So-called 'digital nature' is a hot research topic at the moment. Recent papers have emerged on the rise of computer programmes to help children and adults engage with nature,[4] the use of social media to share research findings outside conferences and academia[5] and the shifts in how conservation organisations engage with members via social media and how this can change public understanding of conservation,[6] amongst other topics.

But there are limits to the help which computer games and social media can provide to nature conservation. The examples cited above variously conclude that:

- Twitter's extreme brevity (just 140 characters) can prevent the accurate presentation of complex scientific results, leading to misrepresentation and simplification in reporting and public misunderstanding;
- Twitter and Facebook messages fail to reach people outside personal contact networks.;
- The narratives demanded for computer games require such simplification of complex natural processes or locations that they become unhelpful as educational tools; and
- Digital nature may come to supplant real nature, thus reducing engagement.

NEIL BENNETT

The first BANC debates: politics and land

BANC Council felt that Twitter would be a good means to engage people and spark interest beyond *ECOS* and the web site. A programme of debate topics is scheduled (see www.banc.org.uk/events). The first Twitter event in July 2015 tackled politics, under the title:

What would it take to make nature conservation a political issue in the UK?

About 20 people tweeted to discuss this question. The nature of Twitter is such that the conversation rapidly drew in others, developed side-branches and generally became chaotic. I curated the discussion via Storify[7] to make the debate available to

non-Twitter users, and to draw together the key outcomes. There were two main, related themes:

A need to connect politics and communities: Many participants wanted more emphasis on engagement and democratic involvement in conservation. The lack of impact of individuals and communities on policy was seen as causing inertia and disinterest in politics. Part of this is attitudes within and without the conservation sector to 'expertise' - mirroring society generally, non-scientists are often undervalued although they can bring both significant practical experience and new ideas to discussions. This is most extreme with citizens wishing to engage on more technical topics and can contribute to the disconnect between community and policy.

More environmental education was a major theme in the tweets, with contributors swapping tips on their experiences. The importance of 'nature mentors' was highlighted. Nature mentors were defined as people who can guide and encourage young and old alike to engage with the environment. It was felt that greater emphasis on environmental education would both encourage the idea of conservation as a 'moral imperative' and help engagement beyond the 'converted' and thus easiest-to-talk-to groups, something many conservation organisations and individuals are guilty of. Further, nature can be perceived as 'too safe', and as 'too emotional' – another critique levelled at social media which is most shared and spread around, when involving personal feelings or emotive issues such as animal welfare.[8] Yet, without emotion, there is no connection. Thus it was suggested that conservationists need to keep emotion without becoming simplistic.

Running through these main topics were issues such as scale – the almost unimaginable scale of global climate change, for example – acting to disempower people ('what can I, just one person on this teeming planet, do to make a difference?') and language (presenting nature in terms that people can understand rather than 'cons speak' or acronyms).

How can the British people gain more power over the way their land is used?

This second debate on land rights was less well-attended – probably because the question was so much broader. Again, the debate is curated on Storify.[9] Many of the elements from the first debate turned up again (education, language, community engagement…) but new themes were:

Who has power? We began to think about who in the UK has power over land, and who the 'general public' are – or rather, publics, as there are many ways of grouping people. Groups like ramblers and walkers, tourists, farmers, forestry managers were all mentioned, along with NGOs and policy makers as an 'elite' of land owners and decision-makers.

New land use models: 21st century commons were suggested as one way to challenge existing models of land management and to encourage greater community

ownership. Local community projects by LandLife were suggested as good models of community engagement in urban green space and wildlife management.

Tweet on

Twitter for BANC has been an engaging experiment, and one that we will continue through the autumn and winter, so please join us at #revitalisecons to share your thoughts! And thanks to all of you who joined us already. It has been good to join passionate, interesting and enthusiastic people in discussing conservation topics, and we hope these debates will contribute to revitalising the conservation sector.

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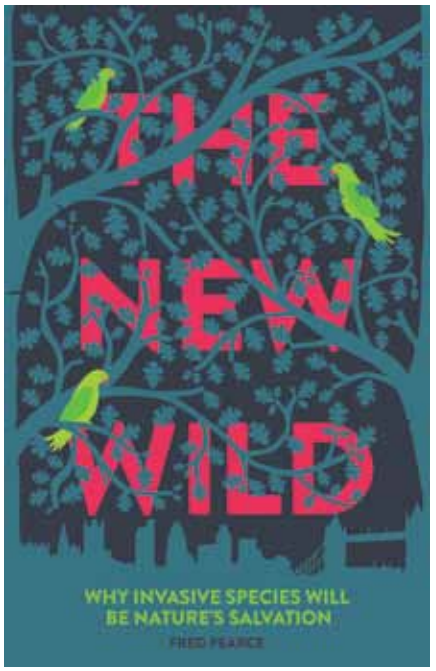
Emily Adams *is BANC's Development officer. emilyadams13@gmail.com*

'Flags' produced by leaf and flower bashing onto linen triangles, by participants on the 'Wild Learning' project by Neroche Woodlanders at Young Wood - the venue for this year's BANC AGM and 'Revitalising Conservation' event. Learners come from local deprived estates and homeless shelters in Taunton. They were invited to make patterns with the leaves and flowers and write some words to describe their experience of being in the woods.

Photo: Gavin Saunders

Book Reviews



THE NEW WILD
Why Invasive Species will be Nature's Salvation
Fred Pearce
Icon Books, 2015, 310 pages
Hbk, £16.99, ISBN 978-1-84831-834-2

In a recent *ECOS* I reviewed Ken Thompson's *Where do Camels Belong*, a refreshing and novel attack on the long-held assumption that as far as the environment is concerned, Native equals Good, while Alien equals Bad. Then, like buses, along comes another in less than a year. *The New Wild* is an important read. Fred Pearce is one of the world's most experienced and thoughtful science journalists, and this book contains a wealth of first-hand experience and a great deal of research.

The "New Wild" Pearce envisages is a world with new biodiverse ecosystems containing new combinations of native and alien species. It sounds like a *laissez-faire* approach akin to the more sensible ideas of rewilding - allowing nature not conservationists to decide what is 'right' for an environment. But there is a lot of rigour and good science behind this startling notion that migrating species offer hope, not calamity.

The first part of the book reviews the history of invasions and introductions across the globe, starting with the example of Green Mountain on Ascension Island, where a treeless mid Atlantic rock has developed a highly diverse and functional mountain forest composed of introduced species from across the globe. This has taken only 200 years, and is safeguarding most of the few natives, while giving the lie to notions that high biodiversity requires lengthy co-evolution.

Turning to Britain, Pearce exposes the hysteria over Japanese knotweed, and the absurd assumptions behind the generally accepted report that it costs the UK £170m per year to grapple with this plant. The overall economic damage to the UK by alien species is assessed at £1.7bn per year, but 60% of that is alien pests on alien agricultural crops - so where is the credit side of the economic argument?

The book is strongest looking at the broader picture. Many of the examples quoted by what has become the "alien species industry" turn out to be temporary surges of species within habitats wrecked by human modification

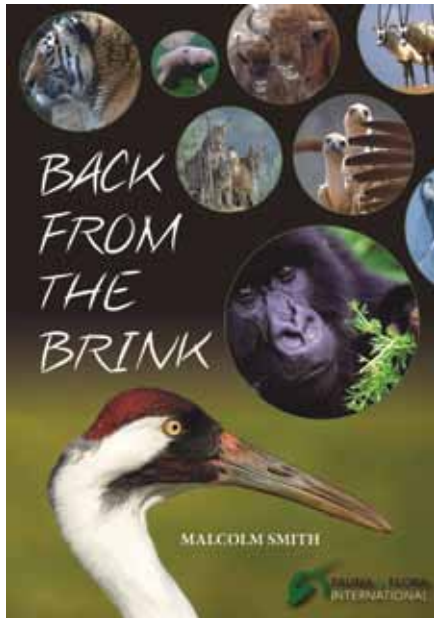
or pollution. The aliens cope in these degraded environments where the previous residents couldn't survive - and often actually help restore the habitat so in time the natives can flourish again. Furthermore, bald statements like "40% of extinctions are down to alien species" have grown like Chinese whispers from selective misquotes from very limited initial data.

Pearce assembles evidence from all continents that what we assume as "pristine or virgin" forest or savannah ecosystems are nothing of the sort. Much tropical rainforest for example has recolonised land cleared for agriculture and occupation in the last 1000 years. Wildernesses are cultural landscapes, and highly biodiverse habitats are not static, but dynamic and more resilient than we might think. Above all, there is little evidence that typical climax communities are so tightly organised from mutually adapted species that adding an alien will cause extinction of one or more natives. On the contrary, in most situations (except rats and goats on islands with vulnerable birds) adding new species just increases biodiversity. And I'm glad Pearce mentions those hotbeds of UK biodiversity, gardens and brownfields, where huge insect biodiversity flourishes in a context of 70% of plants being alien.

In a ravaged world, we cannot expect even colossal expenditure to turn altered ecosystems back to what they once were - whatever that actually means. Pearce foresees a world where aliens are accepted as part of the mix that will generate "The New Wild". Not what we had, but certainly more rich in wildlife than what we have now, and ecosystems where evolution through adaptation and hybridisation will be rapid and exciting.

The book is a dense read, un-enlivened by any figures, graphs, tables or photos, but it is full of well crafted information, and served by a decent index. The arguments may irritate you, but they will certainly make you question your assumptions.

Steve Head



BACK FROM THE BRINK
A Breath of fresh air
Malcom Smith
Whittles Publishing, 2015, 230 pages
£18.99, Pbk, ISBN 978 1849951470

Malcolm Smith is a biologist and was chief scientist at the former Countryside Council for Wales. He has had many features on wildlife and the environment published and is the author of the acclaimed *Life with Birds, a story of mutual exploitation.*

Don't be fooled into thinking this book is biased towards successful

conservation stories. It highlights at great length the effort and dedication of people and organisations, such as Fauna & Flora International (FFI) that have helped prevent extinction of species and successfully reintroduced many of them back into their natural habitat. Many of these species are not well known and thus the book provides awareness of species that are struggling for existence and a profile. The book gives historical background and detailed accounts of the timeline of these animals on the brink of existence.

The book covers the journeys and historical backgrounds of over 15 different 'rescued' species throughout the 20th and in to the 21st century. The wild turkey of North America for example have recovered dramatically and are a genuine conservation success story. Others such as the whooping crane, the Siberian tiger and the black rhino have recovered but are still vulnerable and in desperate need of a long-term conservation effort. In addition, species such as the humpback whale have recovered entirely naturally as a result of the ban on commercial whaling and have needed no intervention in recovering their numbers. These stories demonstrate how there is a need to tailor the conservation strategy with each endangered species. The message is clear; there is no magic solution that will recover these species. Malcolm Smith explains how effort and genuine dedication over many years is the prime reason why many of these species have been rescued from near extinction.

There are certainly lessons for UK conservation. For example the story of the large blue butterfly is symbolic in the struggles to save a species on the edge of extinction. It demonstrates how acting too late results in extinction and that after that literal 'point of no return' the species cannot be recovered. In the case of the large blue, reintroductions have been made using a different population entirely as the original native population ceased to exist. The message here is that we have time to turn these declining populations around, however if we do not act soon there will be no going back.

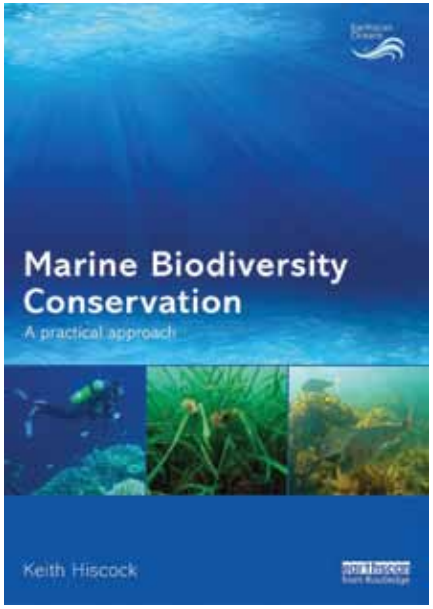
Back from the Brink demonstrates how there is still work to be done and how decades of effort will be for nothing if there is not continued work and support as well a greater awareness of these threatened animals.

Chris Porter

MARINE BIODIVERSITY CONSERVATION
A practical approach
Keith Hiscock
Earthscan, 2014, 318 pages
£34.99 Pbk, ISBN 978-0-415-72356-5
Also available as an ebook

GOVERNING MARINE PROTECTED AREAS
Resilience through diversity
Peter J S Jones
Earthscan, 2014, 256 pages
£49.99 Hbk, ISBN 978-1-884407-665-5
Also available as an ebook

These two titles in the Earthscan oceans series are hopefully an indication that marine conservation is finally catching up with its terrestrial sibling. Although neither book is restricted to northern waters they are both timely as there is a lot happening in the marine conservation world around the UK at the moment. The Marine Act protected areas finally start to be designated around England, Scotland is also dedicating new marine protected areas while Wales is still thinking about



sites but is developing governance and policy on marine issues. Also, we finally see proposals for a set of Special Areas of Conservation to protect porpoises around the UK – only 20 years late!

Marine conservation requires a different approach for a number of reasons such as the lower evidence base to start with, the lack of 'ownership' and easily delineated areas, less of an ability to 'garden' as we do on land and the difficulties of policing areas mainly out of sight. Marine conservation is much more about governing human activities than managing Nature.

The focus of *Marine Biodiversity Conservation*, the book states, "is on benthic species living on or in the seabed and immediately above, rather than on fisheries or highly mobile vertebrates". This makes a change as books on marine management have often focused on fisheries. The author, Keith Hiscock, has a fine pedigree. After being involved with the designation of Lundy as the UK's first marine nature reserve he then led the marine conservation review and became Head of the Marine Nature Conservation Branch at JNCC before moving to the Marine Biological Association at Plymouth, where he is now an Associate Fellow and Senior consultant in Biodiversity and Conservation Science. Although the book is aimed at students it also claims to "provide sound guidance for… professionals".

The first Chapter covers the need for marine biodiversity conservation and is a useful review which many politicians should read! It includes a look at the driving forces behind these needs and has a brief look at ecosystem services. The book points out that effective conservation needs to be based on sound science and the next few chapters give a grounding in that. A look at data needs and sources is followed by chapters on ecosystems, understanding change and the impacts of man's activities on marine ecosystems. The book re-iterates that " Ecologists and policy advisors should not rely on models from terrestrial or freshwater systems to inform marine conservation. Marine ecosystems are different…" and the structure and functioning of marine systems is described.

There follows an introduction to the application of science to marine conservation, and issues associated with rare or threatened species. The order of the chapters does not always seem logical. For example, a chapter on the selection and management of MPAs (which overlaps to some extent with our second book) is sandwiched between chapters on sampling and recording and then assessing impacts and monitoring change – both of which are important and very much linked. A look at recovery and restoration is followed by a final rather thin chapter on 'conclusions and the managers toolbox'.

The volume is well illustrated with relevant diagrams and a selection of colour plates, clearly labelled with the point they are illustrating, in the centre of the book. The case studies scattered through the chapters come from a variety of temperate and tropical environments and illustrated a wide range of concepts and issues.

Although the cover states that the book is a 'practical guide' it is not really a handbook to be readily thumbed as management plans are produced. It is an academic tome aimed at students, but it does contain a lot of clearly explained concepts and practical examples that will be useful to anybody involved in this rapidly developing area. The long reference list, with an emphasis on review papers, is a valuable source.

The author concludes that writing the book has reminded him of the "diversity, beauty and importance of marine life. At the same time, it has been depressing to see how easily some parts of marine ecosystems can be damaged by human activities". Hopefully this book will help stimulate a new generation of marine conservationists to address the problems, develop the themes in the book and get stuck into marine conservation.

The second book on *Governing Marine Protected Areas* is also academic and theoretical in its approach. Whilst an analysis of 'what works and why' is needed this book does not really deliver. The book starts with questions such as: "How can we move to MPA governance systems that balance vested interests…" and promises to explore these questions and the issues they raise from a "governance perspective". The book also makes the points raised in the previous volume that governing marine sites is very different from the models we are used to on land. The case studies used in the book are all within territorial waters and it is made clear that sites in international waters have very different governance issues.

The first half of the book is an introduction to Marine Protected Areas, a look at the objectives of MPAs, including the IUCN categories for such sites and a look at theoretical perspectives of governance. We then get a chapter on the empirical framework used to analyses governance issues at 20 MPAs with a worldwide coverage. Finally we get to an 'Overview of case studies'. This should have been the meat of the book but it unfortunately tells us little about the sites chosen and we are referred to an appendix of a technical report that may be available elsewhere. The main contacts used to obtain information for each site appear to be mainly academics rather than site managers or users and while the accounts tell us which model of governance is employed at different sites there is no analysis of whether the governance system has worked.

While we need to work out how to govern or manage marine sites in an inclusive way agreeable to all users this book does not really progress our thinking. A less theoretical analysis of what has worked, where it has worked and the success factors would be much more useful. Whilst this series of books raises the profile of marine conservation it would be helpful to have publications looking at practical experience of what has and hasn't worked so that we can develop MPAs to fully contribute to conservation.

Mick Green

H IS FOR HAWK
Helen Macdonald
Jonathan Cape 2014, 320 pages
£14.99 Hbk, ISBN 978-0224097000

I tend to be circumspect about literary hype, and the awarding of big prizes doesn't usually attract me to a book. So I wasn't sure about *H is for Hawk*, winner of the 2014 Samuel Johnson Prize for Non-fiction and the Costa Book of the Year award. But my mother pressed me to read it, and I owe her a debt for having done so.

In essence, *H is for Hawk* is the story of Helen Macdonald's relationship with a goshawk, Mabel, and its role in helping her to come to terms with the death of her father. Macdonald had held a fascination for hawks since childhood and had trained as a falconer, yet Mabel the goshawk is a challenge she only just manages to meet. Her struggle with the bird serves as a metaphor, a catharsis, and a distraction from her grief.

As well as being a personal memoir and a natural history monograph, *H is for Hawk* is also a partial biography of E H White, author of a previous nature writing classic, The *Goshawk*, published in 1951. This link to Macdonald's own tale of a biographical and often psychological analysis was risky and potentially over-complicating, yet it works. As a narrative device it allows her to bring some fresh air into the intense story of her grief and her relationship with Mabel, by looking back to White's own complex relationship with the same species.

White, better known for his Arthurian novels, was a peculiarly repressed and tortured character with a brutalized childhood who played out his frustrations on his own goshawk with little understanding of the subtleties of falconry. Macdonald had read The *Goshawk* with revulsion during her childhood, unable to understand his cruelty, yet her own experience of grief brings a new empathy for him. His misanthropic and confused battle with a wild creature hides a love that cannot speak its name. "He could not imagine a human love returned. He had to displace his desires onto the landscape, that great, blank green field that cannot love you back, but cannot hurt you either."

The connection between human loss and emptiness, and human connection with the natural world, is a strong and persistent one. Nature is the friend which fills the void, companionable yet disinterested. Something you can talk to, without fear of reproach or compromise. Something which takes you out of yourself, literally, by giving you a focus outwith the pain in your heart, yet one which is still heart felt. For that alone, Macdonald's account resounded with authenticity to me. Authentic in part because it does not make the mistake of seeing nature as always beneficent. "Like White, I wanted to cut loose from the world, and I shared, too, his desire to escape to the wild, a desire that can rip away all human softness and leave you stranded in a world of savage, courteous despair."

The particular feature of falconry which lends itself so well to the nature writing genre is the nearness, and yet the distance, between human and bird. There's a tension, an attracting and repulsing magnetism. You get physically close to a creature which is tethered to you. Yet there is a burning wildness about this creature, which tolerates its relationship with you only as a strategy for obtaining red meat.

Mabel is tamed, and yet clearly anything but tamed. Part of the fascination, for the reader and for Macdonald herself, is the reptilian coldness about her, flecked with hints of warm character. She appears "like a griffin from the pages of an illuminated bestiary", yet once comfortable with her human companion, likes to play with screwed up balls of paper. The beholding of that cold wildness though, and the proximal and instrumental role of the falconer in the life of the hawk, betrays a darker, yet hugely important part of the thrill, which Macdonald acknowledges in herself and in White: "By skilfully training a hunting animal, by closely associating with it, by identifying with it, you might be allowed to experience all your vital, sincere desires, even your most bloodthirsty ones, in total innocence. You could be true to yourself."

Helen Macdonald has said that by combining different genres into one, she was trying to let them speak to one another. She succeeds, viscerally, and in doing so she helps the nature writing genre take another step forward in maturity and depth. Though sometimes it's a hard read, shockingly open, it is ultimately a hopeful tale, and the result is much greater than the sum of the parts.

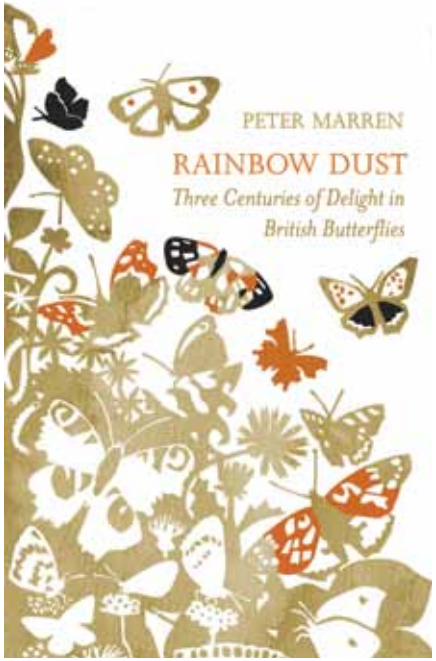
Gavin Saunders

RAINBOW DUST
Three centuries of delight in British butterflies
PETER MARREN
Square Peg, London, 2015, 208 pages,
Hbk, £14.99 ISBN 978-0-22409865-6

IN PURSUIT OF BUTTERFLIES
A Fifty year affair
MATTHEW OATES
Bloomsbury, London, 2015, 480 pages
Hbk, £18.99 978-1-4729-2450-6

Occasionally, I muse on a question that occurred to me some years ago: Is there such a thing as an ugly butterfly? So far, I'm inclined to think not. The question was prominent when I read *The Aurelian legacy*[1], a well illustrated coffee table tome in which Peter Marren had a hand. That book, and the new one by Marren, more engagingly written, but a little meanly illustrated, provide plenty of evidence for my inclination. And the chronicle of Matthew Oates's lengthy affair is solid evidence that the attractiveness of butterflies can be besotting well beyond the powers of most other living beings.

I was interested to note that in each author's childhood a copy of *The Observer's Book of Butterflies* had a catalytic role. *Rainbow*

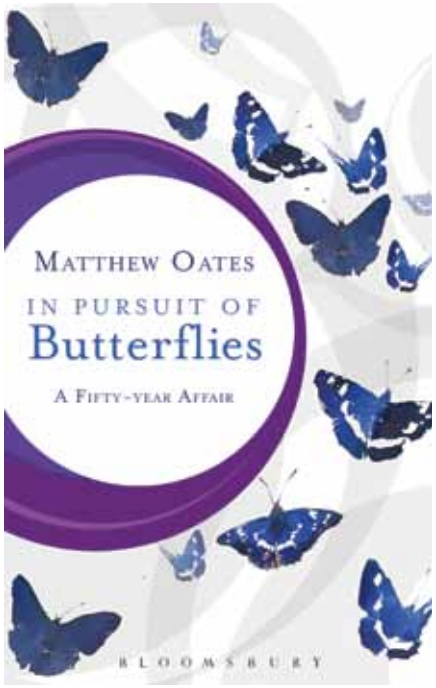


dust makes a journey quite well signposted by references and notes, as Peter directs us through a history of awareness of and then enthusiasm for butterflies, the collecting and naming of them, their uses in arts, in writing and as symbols, the societies in which these insects were admired, discussed, and exchanged, and books about them. For the naturalist, this is full of interesting detail. Peter ends with a summary of Britain's butterfly losses and declines, and his thought on the survivors' preservation. Matthew's journey is personal, and he has little to say about this history, though there are well-suited hints of it. Peter Marren's intention is to look at butterflies in order to see their effect on "our thoughts and ideas" – that is, their "cultural impact". The Oates chronicle is a microcosm of such impact and how it manifests in the intensely butterfly-centred worldview of one person.

The two new books are quite different. *Rainbow Dust begins* with the writer as a child becoming intrigued by these insects, and ends with an appendix summarising each British species; but the bulk of it is the saga of English people and organisations involved in their natural history, soundly based in contemporary writings, with Peter's comments on the story and its characters. *The Pursuit* is conducted by Matthew, beginning in his childhood, from 1971 based on extracts from "the diary". The parade he describes, perhaps not unexpectedly, is predominantly of grander, more flamboyant, rarer, or obscurer, species. Such ordinaries as the cabbage whites and commoner browns are mostly just extras. It is essentially a history of his butterflying expeditions in Britain, most in southern English counties, and of the more significant species seen, with mostly short comments on other aspects of natural history, and a lot of details of the weather.

Matthew's style at times annoyed me, with frequent molesworthian humour, much minor hyperbole, and fascination with patrolling males picking off virgin females and the occasional "pairing *Homo sapiens*" he happened upon. Often, the book seemed overly focussed on repeated eulogies for butterflies. I wanted a stronger context, and more thoroughly discussed aspects of and implications for butterfly conservation than occasional and often unsubstantiated comments. Also, I hoped the book would have discussion of butterfly conservation with respect to other aspects of conservation and post-conservation. If it has, it is largely hidden.

Besottedness seems to afflict not a few butterfly devotees. Matthew reaches his poetic apogee when he finds a rare form



of the purple emperor (so he thinks). More prosaically, two of them took the trouble to write a book enumerating the 'aberrations' of the chalkhill blue (all 400 of them!); others count brown hairstreak eggs on blackthorn, even by car headlights and in snowfalls. Or maybe it is something other than besottedness. In one massive collection a pile of boxes all held the scarce silver-washed fritillary ab. valezine, and Matthew wonders "just how many *valezina* a man actually needs"….

To the Early Greeks, butterflies represented the visible part of the human soul. Indeed, their word *psyche* meant the human soul and also butterfly. When we think 'butterfly', we draw up positive and pleasurable images: this is a symbol of beauty, joy, faerie, and freedom of thought. Matthew Oates tells us that what he most eagerly seeks is natural beauty, and that butterflies make the best offer of this. There is, though, a downside, for these also serve, in some parts of the world, as symbols of such things as sickness, frailty, and death. Their images are not entirely positive, too, when from a male perspective they symbolise feminine delicacy, of fragility, and of sensuality. Neither *Rainbow dust* nor the *Pursuit* follows these threads.

The positive has the stronger pull. Over the past few decades, butterflies have become relatively popular. He doesn't say how many he found, but I guess Peter's list of butterfly images he found in a supermarket was impressive. Butterfly Conservation's membership is not on a par with the RSPB's, but is more than any other specialist wildlife charity's. A success story? But in the last two short chapters – too short, and too separate for my liking - Matthew tells of a change of understanding he has had. Nature "had been his mentor and had latterly become his cathedral". Nature conservation, as he now sees, is love: a mending of the relationship between ourselves and Nature. Somewhat hijacked by ecology, nature conservation urgently need story-tellers and poets.

Peter Marren's thoughts on conservation are somewhat more integrated, but, again, could have been carefully built on. For instance, "conservation thrives on figleaves" seems to deserve, and need, more than four lines explaining that, while listing butterfly (or other) species to give them legal protection, we zap their habitats without let. "It is hard", he says, "to make an economic case for butterflies. We do not need them; nor [..] do they need us. But we care about them all the same, because that is the way we are." Matthew, I think, would partly agree. There would still seem to

be scope for investigation into just *why* these insects are so attractive.

Peter's book should be read top-to-bottom. Matthew's can be too, if you have time and concentration, but a dip-in approach will also serve to demonstrate a nice display of the pleasure that one manifestation of natural beauty can give. I still don't know of an ugly butterfly; but they're not the only beautiful things around.

References

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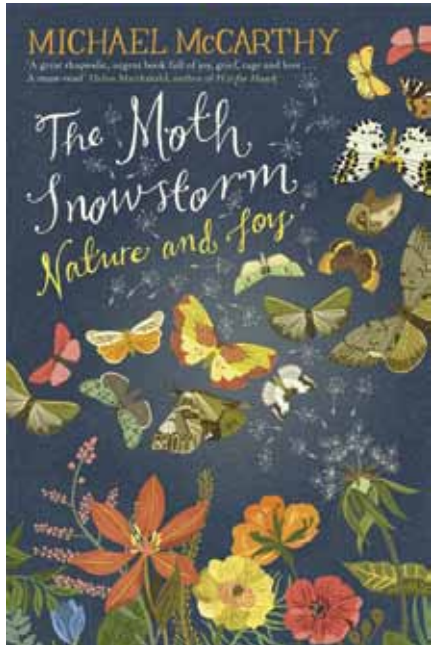
Martin Spray



THE MOTH SNOWSTORM
Nature and Joy Review
Michael McCarthy
John Murray, 2015, 272 pages
Hbk, £20 ISBN 9781444792775

You should not judge a book by the cover but as is often the case in nature, there is always an exception and this is one of those. I could sit for a long time just looking at the lovely representations of moths and flowers by Dawn Cooper that flow across the cover. Fortunately, the track-record of the author, Michael McCarthy, ensures that within the book there is something worth reading.

This is an intriguing book in some ways. To me, it is not a call to arms but rather a lament for what has been lost by a member of that lucky generation, the baby boomers, who were able to experience the British countryside in a way denied to those of us who came after. It could also be said to be an apology on behalf of that generation. The author begins by making the case that the sustainable development approach to protecting the environment has failed and the 'new' ecosystem approach has yet to make its mark. On both counts, he is entirely correct and so, he proposes a third way. This is to protect the environment because of the joy that it brings us: to protect it because it warms the heart and feels a part of us. So maybe it is really an ecosystem service? Perhaps many readers will not need to be told about the enjoyment we can feel when experiencing the natural world, but with increasing development, materialism and disconnect from the countryside, we may be in the minority. There is a growing body of scientific evidence of the importance of engagement with the natural world upon our recovery from surgery and upon our mental health and general well-being. This perhaps offers the strongest case for revising how society views and treats nature.

In the process of developing his viewpoint, the author takes us across the world and back with a broad range of examples (jaw-dropping, in the case of Saemangeum in South Korea) that will ensure most readers will find something that they can relate to. I was delighted to discover a kindred spirit that counted down the days in autumn until the shortest day was reached, and who took joy in harebells and running a moth trap. Inevitably, there is discussion of wildlife losses in Britain and equally inevitably perhaps, is reference to *Silent Spring* being the trigger for greater awareness of the harm done by agricultural intensification. In truth, many were concerned sometime before then. Few today, for example, will be aware that the former Nature Conservancy established its eco-toxicology unit under Norman Moore two years before the publication of *Silent Spring*.

The author is very honest about his family circumstances and how this led to his interest in wildlife. This made me wonder how many naturalists found their calling as a result of unhappiness or loneliness at home? Is this another as yet unquantified example of the healing or protecting powers of the natural environment?

This is a book that assumes no prior knowledge of the subject area and will appeal to those with a general interest in the environment as well as the battle-scarred campaigner. The text flows well and is both interesting and informative. Will it influence the politicians to stop seeing the environment as an obstacle to development rather than an integral part of our existence? Fat chance, sadly. On the other hand, I can see this being a book that influences the writers of tomorrow and that may be an important legacy.

Alistair Crowle

Wildlife Travelpass: Natural England has looked into landscape bridges and wildlife overpasses – structures which can help connectivity for birds, mammals and insects despite a road or railway blocking their path. The report *Green Bridges – a literature review* by consultants LUC is available from NE's web site. It reviews 56 examples, including pioneering examples in Holland and the Mile End green bridge in east London. The photo here shows a side view of Scotney bridge in Kent's High Weald AONB. Hopefully Highways England and other UK transport planning bodies will get the message.

Photo:© Natural England/Liz Bingham

Revitalising Conservation – *ECOS* next issue, and beyond

Revitalising conservation is a major new theme being investigated by ECOS *and BANC. How can the spirit of nature conservation be re-energised in coming years, and what's needed to bring more direction and more clout to conservation…?*

Losing ground?

Nature conservation is more challenged in 2015, as an idea and as a profession, than ever before. Despite general public support for wildlife, and strong membership of wildlife and heritage charities, nature conservation is politically downtrodden and wildlife losses continue.

BANC and *ECOS* have held watch over the conservation movement for 35 years, and the need to revitalise conservation activity is greatly apparent. Over coming months we will be talking with friends and allies to consider how and why conservation has lost ground, and to generate ideas for refreshing the conceptual cause of nature conservation.

Key questions

We want to understand where the conservation movement has come from, what its roots and values are, and what it really now means. What has it achieved so far? At its high points, what have been the ingredients of success? Right now, what is going right, and wrong? And finally, what does conservation activity most need now as a shot in the arm?

Coming activities and your input

Early thoughts in *ECOS* and through BANC twitter discussions have already emerged, and the BANC field day and AGM on 26 September is scoping ideas for further work. See www.banc.org.uk for updates.

The next *ECOS*, 36 (3-4) will major on the topic: a range of different practitioners will offer thoughts on the questions above, and we will have highlights from the 26 September event, Plotting in the Woods. There will be more coverage for revitalising conservation across some of the following editions in 2016, and in a BANC event. There is of course much energy and experience amongst our members and readers, so if you have views on the key questions above, or ideas for *ECOS* coverage on this topic, please contribute via BANC's Facebook or twitter pages or get in touch… *ecos@easynet.co.uk*

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- ☐ 35 (2) Engaging with nature
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- ☐ 34(3/4) Biodiversity Offsets, Local Nature Partnerships
- ☐ 34(2) State of Nature; Rewilding; disease and culling
- ☐ 34(1) Conservation & enterprise, Welsh agency change
- ☐ 33 (2) Defending land-use planning; Development pressures in middle England; Forestry Panel review;
- ☐ 33 (1) Lynx, Badgers, Bees & Beavers; Do we need new groups?
- ☐ 32 (3/4) The Woodland Edge - essays from the wildwood
- ☐ 32 (2) White Paper review, Ecosystem Assessment verdicts, Red Tape rebuff
- ☐ 32 (1) Public Forests Campaign, Big Society, Beavers, Big Birds
- ☐ 31 (3/4) Lawton Report, Big Society, Nature in Austerity
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